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JULY, 1956

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COVER: Our love of horses persists, in spite of all the changes in country life; and when a child, a mare and a foal come together, the effect is irresistible, as Eva Luoma well knew when she took the picture for our July cover.

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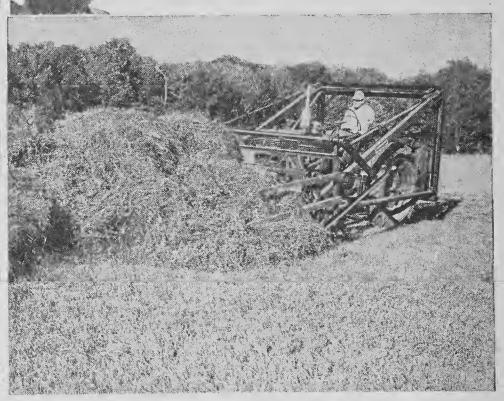
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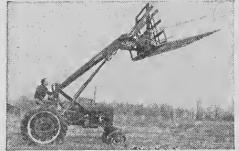
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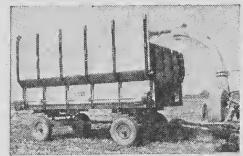
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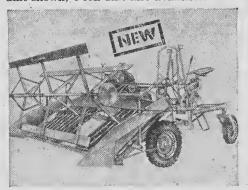




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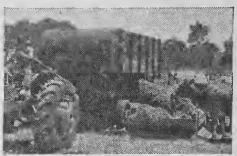
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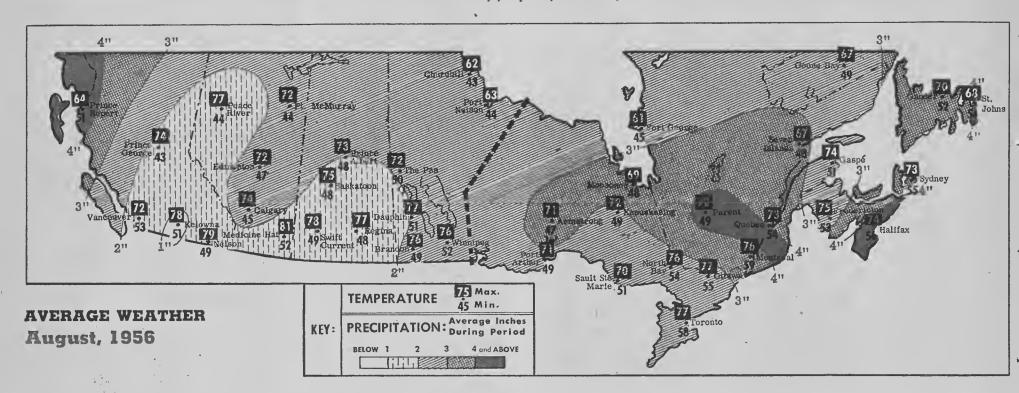


A Divisian af Superior Separatar Ca., af Canada, Ltd.

Weather Forecast

Prepared by DR, IRVING P. KRICK and Associates

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but uot uecessarily for your farm.—ed.)



Alberta

Abundant rains for Alberta. Indeed, rainfall amounts for the province are expected to appreciably exceed normal... somewhat reminiscent of 1954 but not so extreme. At times, showers might be too generous, causing erosion of soil and some injury to maturing crops. Relatively severe hailstorms are likely. Ripening of small grains, swathing and combining should be retarded, with lodging also a problem. In contrast, forage crops will relish the moist situation. Rust-resistant varieties of wheat and oats could well earn the added premium for seed.

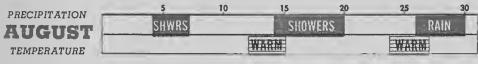
Hours of sunshine should be considerably below average as a result of the frequent showery intervals. In conjunction, temperatures are not expected to measure up to normal. However, no extremes, either hot or cold, are anticipated. The warmest weather is expected about the 12th to 15th and again about the 25th of the

Ontario

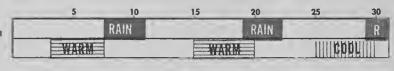
Temperatures will not depart appreciably from normal. Prevailing northwesterly winds should result in a little cooler than usual weather in northern districts, whereas southern Ontario should experience temperatures a degree or two above normal. Highest temperatures are in prospect for the forepart of the month, when maxima of 85 to 90 degrees are expected on a few days. Look for a touch of fall toward the end of August

as an invasion of Arctic air brings first frosts of the season to northern On-

Rainfall, occurring mostly in the form of showers and thunderstorms, should be erratic in distribution. Amounts in northern Ontario will be especially spotted and generally below normal. In southern districts of the province you can expect more generous rainfall; indeed, above normal amounts are on tap for most locali-







Saskatchewan

Frequent intervals of showers and thunderstorms are in prospect for Saskatchewan. The western districts of the province should be especially wet, with less generous amounts in the east. Hail, always a nemesis to crops, will probably be more abundant than usual. Ripening, swathing and combining of small grains should advance nicely in the eastern districts, becoming progressively more retarded to the west. In the latter districts, lodging could be a problem and erosion in summerfallow fields could be more than nominal. Widespread use of rustresistant varieties should minimize losses from that source.

Temperatures will average near normal. No extremes, either hot or cold, are anticipated. Highest temperatures, in the vicinity of 88 to 92 degrees, are likely about mid-month. Hours of sunshine should be less than usually experienced in August, especially in the

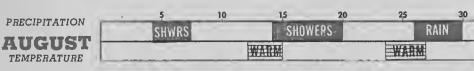
Quebec

Weather in Quebec will lean on the cool side of normal, although temperatures on a few days will rise to seasonal levels. Look for highest temperatures about the 5th, and between the 15th and 20th, when maxima of 84 to 88 degrees are expected. Chilly air will invade the province during the last week, and there is a possibility it will bring scattered frosts to the Abitibi region, but nothing critical elsewhere.

RAIN

WARM

Small amounts of rain should be well distributed over the month until climaxed by generous rains during the last two or three days. The latter rains are likely to result from remnants of a tropical storm and heaviest amounts are expected in the middle St. Lawrence and eastern townships. The rains, welcome for forage crops and late-maturing fruits and vegetables, should interrupt harvest of hay and small grains, and cause some injury to these crops.



Manitoba

small limits of normal . . . no extremes, either hot or cold. Look for highest temperatures about mid-month when maxima near 90 degrees are anticipated. You need not fear an early frost ... none is in prospect. Indeed, temperatures are expected to be rather conducive to orderly ripening of small

Rainfall, occurring mostly in the form of showers and thunderstorms,

should be typically irregular . . . a few Temperatures will range within spots above normal but a good deal more below normal. An extended period of little rain of consequence is expected. Principal shower activity should be experienced at the extremities of the month, with little in between. Drought is expected to become more widespread during the forecast period, adversely affecting the filling of grain, and growth and development of both pastures and row crops in the province.



PRECIPITATION

AUGUST

TEMPERATURE

PRECIPITATION

TEMPERATURE

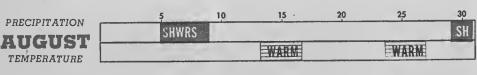
Frequent, widespread rains are in prospect for the Maritimes. Look for some relief about mid-month. Amounts are not expected to be appreciable, however, until the last few days, when the provinces are likely to experience the remnants of a tropical storm. Heaviest rains are anticipated in New Brunswick. Winds and rain during the latter storm could prove somewhat destructive to fruit and ripening grain. On the other hand, pastures should

benefit. In Newfoundland and Labrador, rainfall will be less generous; indeed, well below normal in most instances.

RAIN

YARM

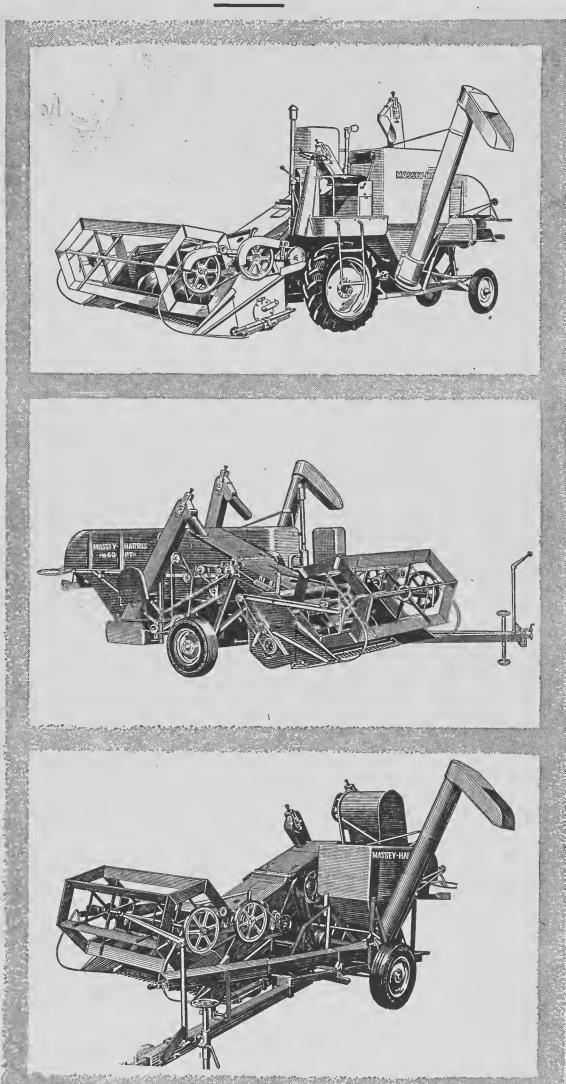
The weather will be on the cool side, although a few warm days are likely between the 3rd and 8th, 14th and 19th. Lowest temperatures are expected to accompany an invasion of Arctic air about the 25th. General frosts are not anticipated but, on the other hand, crop development should be slow.





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FARM NOTES



Servicing the milking machines in the pit of the new milking parlor at the Bailey farm, near Edmonton, where an "open house" day took place recently.

Open House At Clover Bar

PROOF that people are still interested in what's happening down on the farm is the record turnout for the "open house" held June 13 at the Bailey farm near Edmonton, Alberta. Located at Clover Bar, about ten miles east of the city, the Baileys have just completed an ultra-modern, U-shaped concrete dairy barn. One arm of the "U" contains a sawdust-floored loafing area, the center the milking parlor, and the other arm a huge self-feeder. As the milking machines go into action, crystal-clear glass pipelines carry the milk to a large bulk storage tank, located in a separate cooling room. This will rank as one of the finest dairy layouts in Canada, and is one of the first bulk storage tanks to be installed in Alberta.

Changes in Farm Improvement Loans Act

THE bill to revise the Farm Improvement Loans Act, which was approved in the House of Commons recently, extends the life of the act for a further three years, until March 31, 1959, and raises the loan limit from \$4,000 to \$5,000. A section which would permit the government to prosecute within 12 months after evidence of misrepresentation by a borrower came to its attention, was withdrawn, and the government agreed to put a three-year limit on prosecutions. As it had stood in the original draft of the bill, this section would have permitted prosecution any number of years after the offence, provided it was within 12 months of evidence being obtained.

Misrepresentations by borrowers in clude false statements of assets, and spending the loan money on things not specified in the application. The maximum penalty is a fine of \$500. V

Cleaner Seed In Weyburn District

RECENT seed grain survey in the A Weyburn district of Saskatchewan showed that a large percentage of the wheat samples were classified as rejected. This has stimulated interest in plans for a seed-cleaning plant at Weyburn, which are now well advanced. With the endorsement of the provincial government, a local committee under the chairmanship of E. M. Robinson has chosen a site, and hopes to be able to build a plant there on the same lines as those at Kindersley and Eston, at a cost of about \$35,000.

Shares are presently being sold at \$25 each, with a minimum of four per farmer. If the farmer is unable to pay cash in full, he will be expected to pay for two shares and to make up the balance from earnings. Loan capital may also be subscribed at 41/2 per cent interest. The provincial Industrial Development Board is very interested and, if necessary, would be prepared to lend up to 50 per cent of the cost. It is not certain how the plant will be administered eventually, but it will likely be a co-operative.

Although the seed-cleaning plant will be in the rural municipality of Weyburn, and has been planned by the local council, it will of course serve a much wider area. Three main highways converge on the city, and should make the plant readily accessible to most farmers, says A. M. Crowle, ag. rep. at Weyburn, and committee secretary. It is expected that the capacity, using the most upto-date seed-cleaning machinery, will be more than 300,000 bushels a

Harvest Safely And Live to Enjoy It

HERE are some suggestions for safety on the farm at harvest time. Shut off the power before cleaning, adjusting or lubricating your combine, and be sure that everyone is clear before engaging the power. Obey traffic laws when moving machinery on the highway, and see that motorists are warned with flags by day and lights by night, if their visibility is limited by curves or hills. Shield drive mechanisms and power shafts on portable elevators and augers, as well as on the combine.

Children are often the victims of harvest accidents, so don't allow small children near your trucks and equipment, unless there is an adult to watch over them. The older ones will probably want to help, but they should be supervised carefully. Drive carefully when hauling grain, because your tractor brakes may not be capable of stopping a loaded grain wagon. Keep hitches in good condition, and never work under a lifted dump truck.

Wear a hat and cool clothing to protect you from sunstroke and heat exhaustion, drink plenty of water with a little salt in it, and take breaks to avoid fatigue. Always carry fire extinguishers, watch out for straw or trash near exhaust pipes or manifolds, and be careful while smoking.

All these things may take up valuable time, but the price of carelessness is a heavy one.

Milk in The Atomic Age

A NOTHER peaceful use for atomic energy may be to improve the keeping quality of milk. Experiments with irradiation of milk at the British Atomic Energy Research Establishment have shown that treated milk can be kept in excellent condition, and without loss of flavor, for as much as ten days. One result of this could be that milk would be delivered to homes less frequently than at present, perhaps once a week.

The milk is exposed to the gamma ravs which are emitted by radio-active material, but owing to the expensive equipment that would be required, this would be at the large dairies rather than at the farm level. Once the equipment is installed, however, the process is said to be much cheaper to operate than pasteurization, which involves heating and cooling processes.

It may be that this atomic treatment, once it becomes a practical proposition, would make possible an extensive import-export business in fluid milk between nations.

Ag. Grads' Celebration

T was a very happy occasion last I month, when the Faculty of Agriculture and Home Economics, University of Manitoba, celebrated the Golden Jubilee of the Manitoba Agricultural College, but it was also a very moving one. Since the birth of this first institution for education in agriculture in western Canada, it has

not only survived two major wars, a tragic depression, and other upheavals, but has moved steadily forward in the vanguard of a farm revolution which, in half a century, has brought about so many advances in farming technique. The steady march toward better husbandry and better farm living still finds the College, now a faculty of the University, in the fore-

Through reunions, and by honoring the fallen of the two world wars, the graduates and diploma students paid tribute to a proud past, and by participating in the turning of the first sod for a new research and administration building, they pledged their faith in the future. Furthermore, setting a target of \$100,000 to equip the new building, the graduates have already contributed \$16,000 of their share of \$25,000, and an industrial canvass has yielded \$50,000 out of \$75,000, with still a full year to go. It was a happy occasion, but it was also moving to reflect on what had been achieved, and to see that the next 50 years have begun so well.

Cool Eggs For Bigger Profits

THE problem of holding eggs on 1 the farm without loss of quality is worth considering. Poultrymen in the United States are installing mechanically refrigerated egg rooms and cabinets, and in some cases, are being paid premiums ranging from one-half cent to two cents a dozen for refrigerated eggs. In addition to this, it is claimed that they are getting better grades, and hence a better price, because of improved quality. It has been estimated that the higher prices can pay for the equipment within two years, if a good volume of eggs is being handled.

Egg cooling has spread to the hatchery business too. Results tend to show that cooled eggs have a higher hatchability, and in some states hatcherymen are refusing to take eggs unless they are refrigerated.

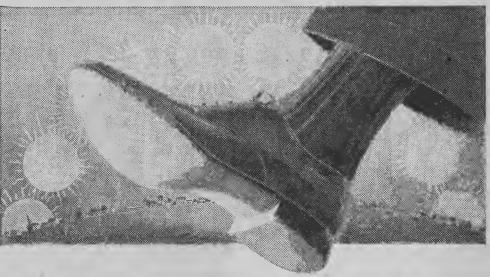
Although a number of poultrymen are financing their own cooling equipment, buyers are showing an interest in the business, and some are helping to finance them, and are then making a deduction from their egg payments until the loan is repaid.



G. N. Denike (center), in charge of Swift Current Experimental Farm, and two of his predecessors met recently. They are (left) Dr. L. B. Thomson, director of P.F.R.A., and Dr. J. G. Taggart, Deputy Minister of Agriculture, Ottawa.

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Field-tested in Canada.

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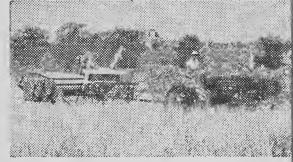
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BIG-CAPACITY CHAMPION McCORMICK McCORMICK SELF-PROPELLED

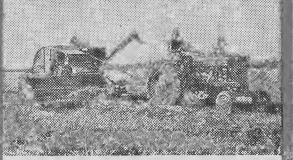
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McCORMICK NO. 140 PULL-TYPE COMBINE — Available with 9-foot platform to handle up to 16-foot windrowed swath. Has the same capacity to clean-thresh as in the champion McCormick No. 141! Pto or optional engine drive.



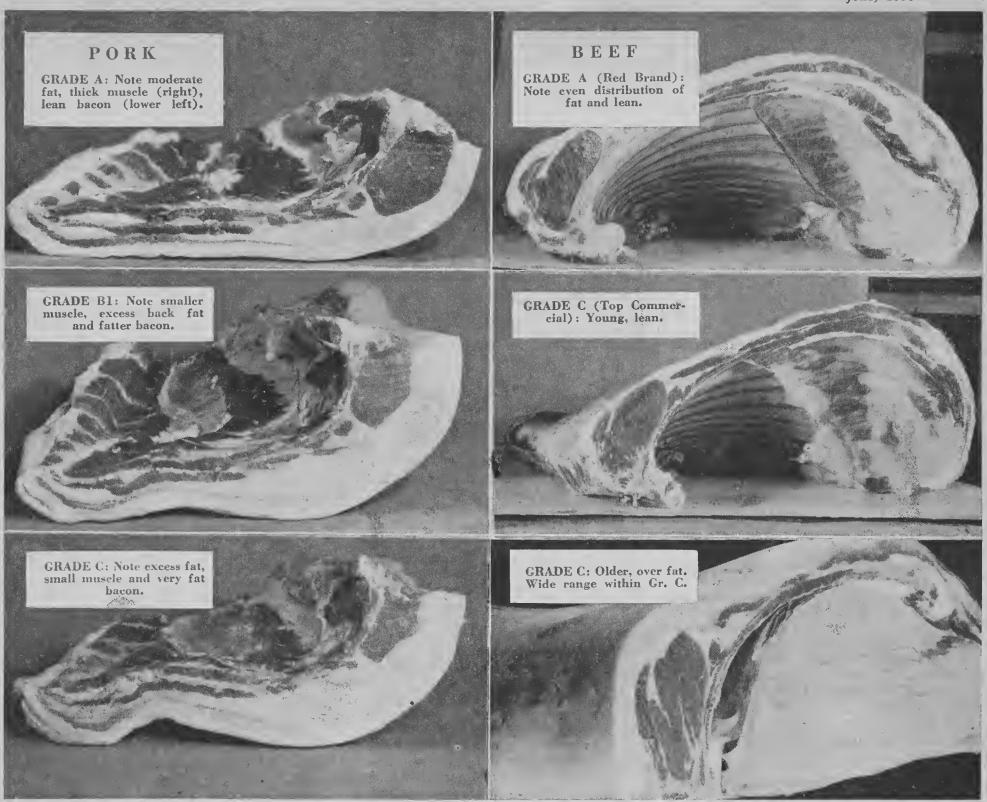
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Where Should We Go with

CARCASS GRADING?

NCREASING discrimination of consumers in the purchase of meats is quite properly a matter of concern to producers and the trade in general. More lean and less fat is the order of the day, at all levels in the meat industry; and this is causing more attention to the evaluation of meat animals, for purposes of settlement to the producer.

Carcass grading has become well established in Canada. National grades have been set up for beef, veal, hogs, lamb and mutton. Beef grading, for consumer identification of quality, was introduced in 1929. For several years now, all beef of *Choice* and *Good* quality, killed under inspection, has been branded. In addition, an increasing number of producers are selling their cattle on the basis of carcass grading. In 1955 grading certificates were issued for some 14,000 cattle and 4,000 calves, of which 60 per cent were sold in western Canada. Many other carcass sales were made, for which no records are available.

Hog carcass grading, begun in 1934, became the only method of grading in 1940. This system is used exclusively for producer settlement. Lamb and mutton grading, developed during the past 18 years, is used fairly widely in producer settlement, and to some extent for consumer branding. Veal is graded for producer settlement.

Here is a useful discussion of carcass grading, with suggestions of desirable changes when these can be agreed on

by H. J. MAYBEE

The various grade specifications were first drafted after considerable study by committees composed of producer and packer representatives, along with provincial and federal government people. The constant problem was to provide for the wide range in commercial value found in meat carcasses, and at the same time to avoid a complicated system which would be confusing in producer settlement. Small revisions have been made from time to time in the light of experience and trade requirements, and some major revisions are under consideration.

If a grading system is to perform its proper function, it will eliminate all major "pooling" of values, which is an inherent part of the unofficial classification of live animals. Any carcass grading is vastly more accurate than live appraisal, but the existing carcass grade schedules do include some grades which are being criticized because they are

too wide; that is, they include too great a range in quality. The packer can easily calculate a price that will be fair for the average of the grade; but the producer with a carcass barely getting in at the bottom of the grade is overpaid, at the expense of the farmer whose animal was at the top.

Two fairly important matters of grade revision, involving beef and hogs, have been a matter of widespread study and consideration for some time. The whole matter of hog quality is, of course, causing concern, in view of the deterioration which has taken place during the past few years. There are probably several factors which have contributed to this, but the net result is too much fat. Over-finish is the most common factor causing hog carcasses to be down-graded. Thousands of potential grade A's end up in grades B and C because of overfinish. Many of these would have made grade A if they had been marketed a few days sooner, even though they are not actually overweight. While there was some spotty improvement in 1955, Canadian hog quality is, on the average for all provinces, below that of ten years ago, and well below what it could be, and should be. This is especially true, if the industry is to maintain an important place in the nation's agriculture in the face of consumer demands for lean meat, and (Please turn to page 43)

Fertilizing with Gas

The use of water, air and natural gas to make high-nitrogen fertilizer applied as a gas, has become part of the farm revolution now under way

by G. E. VALENTINE

Tone time, when crops began to dwindle, the pioneers simply left the depleted soil and broke new land. Then new land became scarce, and farmers sought to keep up fertility with summerfallows, legumes, and crop rotations. The wagon-like manure-spreader, with a team of horses in front and a brown shower of nature's own fertilizer spewing out the back, became a common sight. Tractors replaced horses, and the animal product was threatened by chemical fertilizers. Last year Canadian farmers used some 800,000 tons, compared with around 200,000 tons 20 years ago; and seed-drill attachments now sow the grey powders or pellets along with the seed.

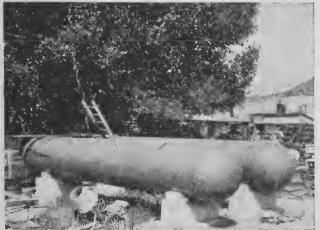
Machines to fertilize with ammonia gas now have been rolling off assembly lines in the United States for several years. Last year some 27 per cent of the two million tons of fertilizer nitrogen applied to the land there was in the form of ammonia, either anhydrous (water-free), or mixed with water.

And it has started in Canada. Some 50,000 acres in Ontario were fertilized with ammonia last year. In the West, Consolidated Mining and Smelting, of Trail, whose "Elephant Brand" chemical fertilizers are well known, has been experimenting on prairie farms. Experimental stations have been testing it too.

WHY should farmers who are just getting comfortably accustomed to treating ailing soil with chemical pills, change over to this new method of giving hypodermic injections instead? What is ammonia? What are its advantages?

It's quite a story. Ammonia itself is old stuff; it is so named because this pungent-smelling gas was first produced from camel's dung near the old Temple of Ammon in ancient Egypt. Scientists have long known that it is a very rich source of nitrogen, a basic element in any fertilizer. Indeed, our most popular commercial fertilizers are made from ammonia. Yet the nitrogen-richest of them all, ammonium nitrate, contains only 331/2 per cent nitrogen, whereas ammonia contains approximately 82 per cent.

That is why scientists have been trying for many years to apply it directly to the soil. No method of doing so successfully was found until about 1930, when a man from Missouri, J. O. Smith, showed the way with a crude cultivator-device, drawn by



Storage tanks of this type are used by dealers for keeping their stocks of anhydrous ammonia.



An anhydrous ammonia applicator in action. Nitrogen applied by this method rose to 27 per cent out of two million tons in the United States in 1955, and Canada is now increasing its use steadily.

one Missouri mule. Oil company chemists were wrestling with the problem, and came up first with a method of mixing ammonia with irrigation water, that had great success in California; and second, a machine for injecting ammonia gas directly into unirrigated soil.

World War II held up this development, but it also stimulated the building of ammonia plants to provide nitrogen for explosives. When the war ended, the agricultural use of ammonia began. It took a little while to gain momentum, but about 1948 the boom was born, and it has been growing by leaps and bounds ever since.

Corn crops, because of their great demands for nitrogen, seem to profit greatly by the application of ammonia. An 82-acre field in Louisiana, for example, yielded an average of 143.5 bushels per acre, by actual weight, after fertilization with ammonia. Growers in Ohio also reported doubling wheat yields by its use, and grains, root crops, tree fruits, and even pastures all have shown large increases in production when ammonia has been applied.

AMMONIA gas and chemical fertilizers both do much the same thing: both put into the soil the nitrogen from which plants make the proteins, which are so essential to higher animals. Ammonia, however, is made from natural gas, air, and water. We have plenty of the last two, and natural gas is also becoming very plentiful in Canada, as new oil fields are opened up.

Made from such simple ingredients, ammonia should be considerably cheaper than nitrate. It is, too, because ammonia provides nitrogen at 5.25 cents per pound, f.o.b. the manufacturing plant, whereas, in nitrate form nitrogen costs 13.5 cents. Nevertheless, by the time the ammonia has been shipped by costly tank car to a distributor, who must keep it in pressure storage tanks that are also expensive, and then deliver it—still under pressure—to the farmer, its costs have risen very much closer to the price of nitrate.

Applying ammonia to the land is not cheap, either. It is usually done by a sort of cultivator with a white tank on top in which the ammonia, still liquid under high pressure, is metered out into tubes running down into the teeth. Here the pressure is released, the ammonia turns in o a gas, and in this form is delivered from the tubes behind the teeth into the soil, four to six inches deep, and covered up.

There is also the low-pressure method of applying, where the ammonia is mixed with water and is known as aqua ammonia. It is simpler and safer in some ways, but more bulky, and so far the anhydrous, high-pressure type seems more popular.

Either one requires a fairly expensive machine, to apply it. The anhydrous ammonia applicator costs about five times as much as an ordinary seed-drill attachment for spreading chemical fertilizers. By the time the overhead on this machine is allowed for, the cost of ammonia fertilizer is presently about as much per pound of nitrogen delivered, as nitrate. Considering the initial outlay for equipment required and the fact that there is a certain amount of danger in its use (the ammonia is under considerable pressure and its concentrated gas will irritate nose, throat, or eyes, or blister bare skin), ammonia might appear to compare rather unfavorably with good old nitrate.

But it has advantages too. It is all a matter of tanks and machinery—no wearisome handling of heavy bags, as with chemical fertilizers. Its very newness and "scientificness" is an attraction. And the danger and difficulty of handling it are not serious; no more than in running a combine, probably, or an old-time threshing outfit.

Indeed, the answer to costly equipment and the need for know-how is already turning out to be something similar to the old threshing cutfits. Big farms have their own. For the smaller farmers there are custom outfits complete with trained operators, which go around applying ammonia to the land of any farmer who contracts for it. But only one man to a "gang;" no manual labor—no muss, no fuss, no bother. The cost of nitrogen applied in this form now runs about the same as for nitrate; but the greater convenience is tempting, wherever such service is available.

Moreover, ammonia is pretty sure to get cheaper as it comes into wider use. Of course, the price of nitrate may be cut to keep pace with it. In that case, will the ammonia have any other advantages?

THE answer to this involves a bit of soil chem-I istry. Atoms, molecules, ions and their ilk are mysteries to me, too, but three important facts about the behavior of nitrogen in the soil emerge fairly clearly from the murk. One is that nitrogen must be in the nitrate form for plants to use it. A second is that the soil is full of energetic little bacteria whose chief joy in life is to convert all the leaves, stems, straw, chaff, etc., they can find, and also ammonia itself, into nitrate. The third is that particles of soil, particularly clay soil, apparently look on ammonia as a pretty girl which they are eager to clasp to their bosoms, but on nitrate as a poor relation to whom they are indifferent. Thus, when water from rain, irrigation, or melting snow sceps down through the soil, it can-and doestake nitrates with it; but the ammonia remains locked fast in electrostatic embrace to the soil. So, leaching, which may cause considerable loss of nitrate fertilizers, does not affect ammonia.

As long as it continues to be ammonia, that is. In the spring and summer this is not long. Those dogged little soil bacteria are able to change it over to nitrate in about three weeks. Still, this period of non-leachability (*Please turn to page* 23)



Basking in warm sunshine, an endless expanse of grass on the Y-Cross Ranch at Longview, Alberta, is nearing the stage when it will be just ready for Joe Bews to start the haymaking.



His first step is cutting it with a hay mower, using horses instead of the power units which are more common these days.

Haying with Horses

Joe Bews of Y-Cross Ranch, Longview, Alta., uses a time-honored method

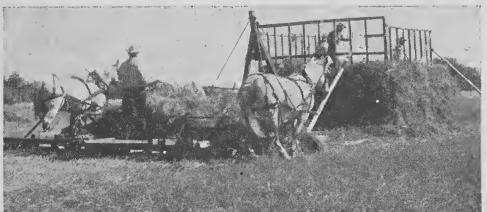
Photographs by BERT T. SMITH



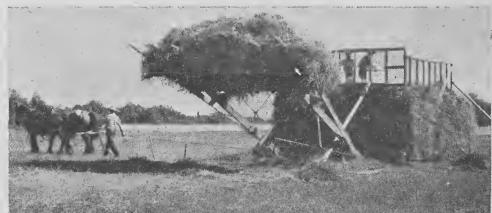
The next job is to rake the hay into windrows, properly cure it in the sun for a few days, and then rake it into bunches.



Once the cured hay has been put in bunches, the horse-drawn sweep can be brought into action. This piece of equipment is very rarely seen now that the baler has replaced it.



The hay is swept to the place where the stack will be built. It is pushed on to the overshot, and the sweep is backed away to collect another load.



The overshot is pulled by a team of horses, lifts up the hay and unloads it automatically onto the stack, and is then lowered to receive more hay.



One or two men are employed on top of the stack to fork the hay into spots where it is needed for levelling. Slowly, but surely, the horses come and go, and the stack takes shape.



The finished product may vary a lot in size and shape, but is always built with a peak to it, so that it will shed moisture readily.

HE long trail makes my bones stiff," old E-mo-shoom said to the family. "Leave me here, where I can watch the spare horses while you are away."

"I will stay with grandfather," offered Ne-kick, the otter.

"Hail A boy who does not like carnivals and summer camps where we meet our friends!" the mother fussed. "What say you about this, O-ta-we the father?"

"Let them stay if they wish," the man said, and finished loading the wagon. "All the rest, climb on and we will go."

So the old man and the boy stood beside the squat cabin on the river bank, waving as the family went down the trail to the farmlands where white men paid Indians to wear feathers and buckskin and walk in parades at summer fairs. When the wagon was out of sight, the dark eyes of E-moshoom fastened on the slender youth. The bronzed, leathery countenance of the oldster appeared to be completely expressionless, but Ne-kick started laughing at once.

"It was not only because of the horse," the boy chuckled. "Truly, grandfather, I stayed to be company for you."

E-mo-shoom shook his head almost regretfully. "Had you gone with the others, perhaps you would have forgotten that strong stallion. Your father and his helpers had a terrible time when

they captured him. No man could ride him, and they were glad enough to turn him loose before he killed someone. Now you have given up a summer's wandering to stay here and tame him."

"Not alone," protested the youth. "I hoped that you would help me."

Again the old man's eyes lingered on the smooth-faced

boy. They shared the same thoughts, the same love for this mountain wilderness as yet remote from the busy whites and their noisy highways.

"Do you think it can be done in a day, my grandson?"

"Oh, no! But the others will be away for two moons. In that long time, perhaps we can catch the grey stallion."

"A young boy and an old man pitted against a horse who hates all men because he wishes to be free. You think we have a chance, Ne-kick?"

"I have a secret, my grandfather. I have been going to the hidden lake to watch him and he has a favorite trail. It is through a narrow ravine which hides him from sight until he reaches the lake. We could fence that ravine while he drinks."

"So? And what then, little one?"

"Grandfather, you are wise. I hoped you would tell me how to break the animal."

A dry chuckle sounded briefly as the pipe was removed from pursed lips.

"I have a secret, too. When I was young my own grandfather told me a sure way to tame a wild horse. It is called the water ride, but before you try it you must work. There is no easy way to win anything good, without working."

He crossed to the hitching rail that held their riding gear and took the coiled rope from his saddle. Shaking out the lariat, he gave it a flip and the loop circled the end of the rail. Then the man made a smaller motion to send a half hitch rolling over the railend.

"I cannot do it quickly anymore, but you have no stiffness in your joints to make you slow. Take the rope and learn it, Ne-kick, for this is part of catching the wild one."

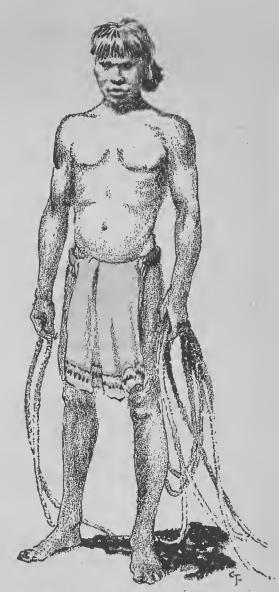
The grandfather eased himself onto a stump and watched while the boy swung the lariat. After what

THE WILD HORSE

by KERRY WOOD

A rope was young Ne-kick's chief weapon in taming the wild grey stallion—that and all the training given him by the wise old Indian





With only a breech-clout flapped over his belt, the rope in Ne-kick's hand was his chief weapon.

seemed like a long time, the loops stayed round in the air until they settled over the target, and even a few of the half hitches caught and held.

"Have you thought of why you must practice this?" E-mo-shoom asked when the youth paused to rub his arm.

"Yes, my grandfather. It will let me put a rope halter around the neck and nose of the grey stallion." Then the youngster added: "But'am I strong enough to hold him, once I have roped him?"

The old man's shoulders shook with silent ughter.

"Hai! By the time you have learned this trick, perhaps you will have grown big and strong, eh?"

DURING the evenings, after a supper of trout or marmot stew, they rode across the hills back to the cabin to visit the hidden lake. The pond was hardly large enough to call a lake, yet it was deep from the riverlet that came from Thunder Mountain. As they approached it, the old man always put away his pipe to prevent the smoke giving any scary scent to the horse band. Most of the time the Indians stayed well beyond scent range, content to spy on the grey stallion from the hilltop.

"See, grandfather! Again he uses that narrow ravine, and alone."

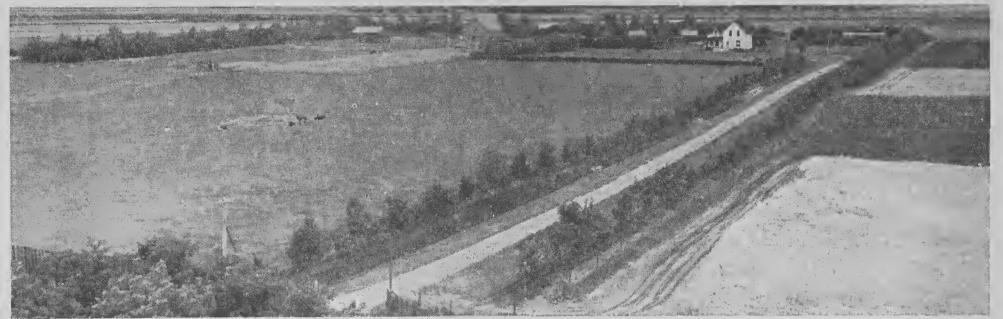
"The mares are on the meadow where the gorge starts," pointed the old man. "Probably they drank earlier, and he goes after another taste. Stallions are always thirsty."

"We could easily string a fence at that narrow part," Ne-kick said. "Then he would be corralled in a small space where my rope could catch him.".

"Tell me how we would hang onto that rope, once it is on him? Look at the power in that arched neck, the depth of chest and the big muscles in those long legs. Hai! The stallion would soon win free from our puny strength."

As though sensing their eyes, the animal flung up its head and shrilled out a loud whinney. Swiftly it galloped back up the draw to join the alerted mares. Once at the (Please turn to page 30)

Illustrated by Clarence Tillenius



A general view of the Illustration Station at Lyleton, Manitoba, which has been on the Edgar farm since 1935. Note shelterbelts and rotation strips.

Farm Management Studies at

Illustration Stations

The Experimental Farms Service is working with farmers in ten provinces to determine profitable farm management practices for local areas

by A. E. BARRETT

T is not generally known that 101 farmers in Manitoba, Saskatchewan and Alberta are working closely with the Experimental Farms Service, in a program of agronomic research, developmental studies, and farm management investigations. These studies are designed to provide continuous information on agricultural problems and to evaluate measures whereby solutions can be obtained.

Illustration station farms are so located that they represent areas and soil types not covered by the experimental farms with which they are associated. Many of the present owner-operators have been working with the Division of Illustration Stations for periods of from 25 to 30 years, during which time farm operations and investigations have kept pace with rapidly changing agricultural conditions. The soils and crop investigations conducted on these farms have served to point up the differences which obtain between soils and areas and suggest avenues of approach to the solution of specific farm problems.

Continuous farm management studies have been conducted, in co-operation with the illustration station owners, through a great number of years. One of the classical experiments on crop rotations has been conducted by Peter Tornquist, operator of the Illustration Station at White Fox, Saskatchewan, in co-operation with the Melfort Experimental Farm. Through 16 years up to the end of 1953the experiment is continuing-Mr. Tornquist did careful work and maintained accurate records of costs and returns from a three-year rotation of fallow-wheat-oats; a four-year rotation of wheatoats-hay-hay; and a six-year rotation of fallowwheat-hay-hay-wheat and oats. Wheat yields averaged 23.2, 27.5, and 34.6 bushels per acre, respectively, in the 3-, 4-, and 6-vear rotations. For all crops, net returns per acre from cash crops, after costs, were \$10.16 for the three-year rotation, \$12.22 in the four-year rotation, and \$14.17 per acre for the six-year rota'in. When the value of the hay was considered, additional credits of \$2.07 per acre for the four-year rotation and \$1.69 in the six-year rotation were recorded.

Values used for wheat were \$1.50 per bushel, oats \$0.65 per bushel, and hay \$10.00 per ton. Mr. Tornquist has shown quite conclusively that soil conserving crops not only increased the yield of wheat, but at the same time the over-all financial picture of the farm operation is enhanced by this practice.

Glen and Carl Levee, operators of the Radville Illustration Station, own 1,600 acres of Trossacks Clay Loam. This problem soil has occupied the undivided attention of the Levee Brothers, and it is an experience to spend some time discussing tillage practices, moisture conservation and crop production with Glen and Carl. In co-operation with the Indian Head Experimental Farm, rotational studies at Radville show that through 19 years, wheat in a fallow-wheat rotation has yielded 22.6 bushels per acre, with a net acre return of \$6.10 per annum, for the rotation. Resul's from a fallow-wheat-wheat rotation, through a 23-year period, record 20.7 bushels for first crop wheat, 11.9 bushels for second crop wheat, or s'ubble wheat, with per acre returns for the rotation of \$5.20 per annum.

Barley in a fallow-barley rotation has recorded an average yield of 36.5 bushels per acre, through 17 years, with an acre re'urn, over costs, of \$6 15 for the rotation. With wheat valued at \$1.29 for No. 2 Northern and barley at \$0.76 for No. 3 feed, these records show a high level of substitution for these two crops at these price ratios.

THE long time record of wheat production on the Levee farm is of interest. The average yield of wheat on fallow in the 24-year period, 1931-55, has been 22.1 bushels per acre. In the period 1931-44, the average yield recorded was 17.5 bushels per acre. It varied from a low of 2.0 bushels in 1937 to a high of 35.0 bushels per acre in 1942. Since 1939, when a yield of 14.5 bushels was recorded, wheat on fallow has yielded 20 bushels per acre and better, except in 1954, when hail wiped out the crop. Basing predictions on 24 years of past performance, the yield probability on the Levee farm, with a 22-bushel average, would have a range of variation of ten bushels above and below the average. In the ten-year period 1945-55, leaving out 1954 when a fair to good crop was hailed out, the average of 28.6 bushels with a range of 6.1 bushels paints a very satisfactory picture of success on a problem soil.

This continuous program in relation to soils and crops on privately owned farms, provides a fund of data which is immediately applicable in each district. Peter Tornquist and Levee Brothers are mentioned specifically here, but each of the illus-

tration station operators in the prairie provinces, as well as those in the other seven provinces, is conducting projects which are fully as fruitful sources of information. To return to the prairies, cost studies on grain crops are a means of determining the relative importance of the factors that contribute to costs. For wheat on fallow, in the crop seasons of 1951 and 1952, about 71 per cent of the cost had been incurred by the time the seed was in the ground. Summerfallow costs comprise 30 per cent; seed 15.0 per cent; and land preparation for seeding, seeding and fertilization 11.0 per cent of total costs.

Efficient summerfallow operations, high quality seed of the right variety, adequate tillage, proper sceding methods and fertilization are within the orbit of the individual farmer to control and are the main cost factors incidental to the production of a crop.

An analysis of sources of revenue on prairie illustration stations during the period 1943-47, inclusive, showed that 50.2 per cent of farm revenue was derived from crop sales. In the period 1948-52, inclusive, 58.3 per cent of total revenue was derived from crop sales, and 29.3 per cent from livestock and livestock products.

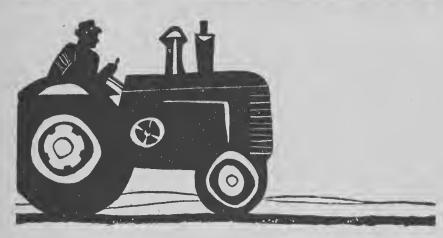
(Note: Dr. Barrett is Chief, Division of Illustration Stations, Experimental Farms Service, Canada Department of Agriculture, Ottawa.—ed.)



Contour grain growing is practised by G. J. Withage, at the Nobleford Illustration Station, Alta.

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ALWAYS LOOK TO IMPERIAL FOR THE BEST

Under the Peace Tower

by HUGH BOYD

NE recent date that did not go unnoticed in this politically conscious place was the 60th anniversary of the coming to power of Sir Wilfrid Laurier. June 23, 1896, was the date, although he actually didn't take office until early July. In the 60 years that have passed since then, the Liberal party has held power for all but 16 years—a little less than 16 years, as a matter of fact—and that period includes nearly three years of Union government.

Yet it was a rather chastened party that surveyed the scene around it on that 60th anniversary. The week had seen three setbacks in New Brunswick, Quebec and Saskatchewan. Of these, easily the worst was in Quebec. The New Brunswick election result might be accepted philosophically, because after all there was only an additional loss of one seat, and that by the narrowest of margins. Although it had to be admitted that the Liberals no longer could claim an edge in the popular vote as had been the case in 1952. There were few illusions about Saskatchewan, in spite of an actual gain in seats, because 31 per cent of the popular vote is hardly an impressive showing for a party that once ruled the province almost without challenge. However, not too much was expected from Saskatchewan by the professionals.

QUEBEC was a shocker. Georges-Emile Lapalme, who had left the federal arena to take charge of a disspirited provincial Liberal party prior to the 1952 election, poured tremendous energy into the campaign and was sure he was going to make a further large breach in the Union Nationale fortress of Premier Maurice Duplessis, if not to overthrow it altogether. (In 1952, Mr. Lapalme had increased Liberal holdings from eight to 23 in a legislature of 92.)

But the expected gains did not materialize, nor did the Liberals even hold their own. The fact that their net loss of seats was minor takes little of the sting out of this reverse. Mr. Duplessis is still the boss, and he may feel disposed to retaliate against the federal Liberals in his province when Prime Minister St. Laurent decides to go to the country. Some Liberals from Quebec view this prospect with some anxiety, notwithstanding the fact that Quebec has voted overwhelmingly Liberal during most of the past half-century.

A rather curious situation has existed in Quebec of recent years. For all their outward displays of animosity, the federal Liberal and provincial Union Nationale parties have managed to co-exist remarkably well. Federal Liberals have stayed out of the ridings occupied by Mr. Duplessis' followers, and vice versa. Sometimes they have actually made use of the same organizers at election time.

But this time the Liberals went after Mr. Duplessis' hide with a vengeance. They called off all deals. They looked about for allies who would help in a common cause—the ousting of Union



Nationale—and some strange ones they picked up along the way. Their espousal of several rabid Quebec nationalists and the Union des Electeurs (the Quebec version of Social Credit) was questionable policy from the first. In the event, it appears to have done Mr. Lapalme great harm.

As for the ending of deals with Union Nationale candidates, the result will be worth watching at the time of the next federal election. If Mr. Duplessis and his supporters intervene at all seriously, they might make matters quite uncomfortable for Mr. St. Laurent's party. The Conservatives, who would presumably be the chief beneficiaries of such intervention, have already shown signs of revival, having run strongly in several byelections in mainly French-speaking constituencies since the last general election. And, of course, Mr. Drew simply must have a cluster of seats in Quebec-say 25-if he is to have any hope of forming a government.

THE one factor in last month's three I provincial elections that the professionals can't quite assess is the future of the Social Credit party. It seems more likely to embarrass the Conservatives than the Liberals, since its tenets are essentially right-wing and it is the most ardent upholder of private enterprise to be found in Canadian politics today. Yet in Saskatchewan, the Social Credit bid, aided by the premiers of Alberta and British Columbia, left the party little farther ahead than it was in 1938, after a similar invasion led by the late William Aberhart. In Quebec, Social Crediters lost their deposits, and they did in New Brunswick, too.

But observers returning from New Brunswick point out that because of the strange ballot system whereby voters in the multi-member ridings either write out their own choices on blank sheets supplied by the deputy returning officer, or else use printed lists supplied them by the parties, Social Crediters were at a disadvantage. They were inexperienced; they did not make sure that the voters knew who they were.

Thus this party remains an imponderable in federal politics. In Ontario, however, Social Credit does not at present appear to carry much appeal to the people in either rural or urban constituencies.

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A Brief Look At World Farming

Canadian slaughter cattle exports in the first five months of this year totalled 811 head, compared with 6,768 last year. During the same period, there were 5,075 American cattle and 118 calves offered for slaughter on Canadian markets.

When shipping hogs in hot weather, says the Meat Packers Council of Canada, avoid overcrowding in trucks and railway cars, bed them down with wet sand, and load them with the least possible excitement. Dead hogs cut down profits.

Amazon jungle land can be bought at half a cent an acre. The Brazilian Government sets a limit of 25,000 acres for each purchaser, in an area about the size of Quebec. Rubber, oil palm and nut trees are the most successful crops.

A Nova Scotian poultry co-operative, set up in 1944, increased its business to \$903,126 last year, compared with about \$700,000 in 1954. It was planned to have a million-dollar business by 1960, but it may reach that figure this year.

The British Land Council is a new organization intended to teach the British public to regard the country-side as a larder rather than a playground, and it hopes to raise home food production to 75 per cent of home consumption. TV and films are being used in the campaign.

A U.S. committee on weather control, appointed by President Eisenhower, reports that man can increase ramfall by 17 per cent or more, and may be able to control hail, modify tornadoes and restrict the danger of lightning. Rain is produced by seeding clouds with silver iodide smoke from generators on the ground.

Illustration stations in central Alberta found that in 1954 and 1955 the average per cent gross revenue from farm enterprises was as follows: Cattle, 40.7 per cent; field crops, 25.8 per cent; hogs, 17.5 per cent; poultry, 4.5 per cent, and other sources, 11.5 per cent. In general, two enterprises per farm were better than four or more. V

Fluorescent bees at the Ontario Agricultural College, Guelph, are giving data on cross-pollination of fruit trees. Marked with a special powder at the hive exit, bees leave a fluorescent trail wherever they go, and their activities can be studied.

A Wisconsin farmer has extended the front wheels of a standard tractor 120 inches outwards, with special arms and supports. This enabled him to plant four rows of corn in the wheel tracks simultaneously. The rear wheels were set 40 inches apart to compact the soil on the inside rows. Liquid fertilizer and weed control chemicals were applied in the same operation as seeding.

A tractor-mounted pile driver at the Mortlach dryland fodder project in Saskatchewan has cut the time for setting fence posts by 80 per cent. The equipment includes a 12-foot metal frame and a 400-pound metal block on a steel cable, which runs to a pulley at the top of the frame and onto the tractor winch.

Manitoba Seed Growers Co-operative, formed at Portage la Prairie last month, started with 154 applications from seed growers and went into business almost immediately.

The Jewish Agricultural Society of New York reports that nearly ten per cent of the 23,000 families of Jewish displaced persons arriving in the United States since the war have taken up farming, and are producing mostly eggs, broilers and milk.

Harper, a new hybrid muskmelon developed at the Harrow Experimental Farm, Ontario, is gaining popularity because of its resistance to fusarium wilt, which is a severe soil-borne disease in some areas. Growers in the Niagara district, as well as in New Jersey and Michigan, have adopted this variety.

The severe winter-kill of pastures in the Fraser Valley, B.C., has caused a drop in milk production of ten per cent, or about 10,000 gallons a day, compared with last year. Farm leaders in the area doubt if there will be enough milk for local demand by October or November.

Price supports for wheat are less only in Argentina and Pakistan than in Canada, according to the International Federation of Agriculture. The highest support among the 33 countries listed is \$4.04 a bushel in Finland, compared with \$1.40 in Canada, \$1.34 in Pakistan, and \$1.18 in Argentina.

Imports of vegetable oils into Canada during 1955 were: Cocoanut 31,-911,500 pounds, cottonseed 27,920,-100 pounds, pe a nut 16,453,700 pounds, soybean 14,490,200 pounds, palm and palm kernel 43,476,700 pounds. Oil-bearing seeds (oil equivalent): Copra 10,682,017 pounds, soybeans 80,757,475 pounds.

Canadian Champion Holstein producer is Lass, owned by Mr. and Mrs. Fred Pollard of Merlin, Ontario. In nine consecutive 305-day lactations on official record of performance test, which is supervised by the Canada Department of Agriculture, she produced 134,540 pounds of milk and 4,803 pounds of fat. Her official name is Bessie Abbekerk Pabst Lass.

The General Agreement on Tariffs and Trade in Geneva set a turkey tariff equalizing Canadian and U.S. rates at 12½ per cent as now, with a minimum duty of five cents per pound, and a maximum of ten cents. This gives Canadian producers additional protection against U.S. imports when prices are very low.

Green buttermilk powder is being sold by New Zealand at the rate of 160,000 pounds a month to Malaya, where it is used as poultry feed. Green coloring was added at Malaya's request to distinguish it from milk. New Zealand is packaging and selling milk powders in 30 different ways.

LIVESTOCK



This gate at an lowa State College farm, lets small animals pass through, while keeping cattle in. A concrete counterweight holds gate in position.

Guide to **Beef Production**

STARTING a beef herd is not something to be undertaken lightly. The chief needs are that pasture and roughage should be readily available and at a relatively low cost, and that depends on the amount of land available for pasture production. Finishing cattle in stables or feedlots should be confined to farms where pasture is not included in the crop rotation, or where other stock, such as dairy cattle or sheep, compete for the pasture that is available.

The Ontario Department of Agriculture says that a guide to choosing a suitable breed is to take note of the breed most frequently found in the district, because this is most likely to be best suited to local conditions. Personal preference in breeds should not be ruled out, however, because it will give satisfaction to the farmer, and he will probably develop into a more successful beef producer if the work gives him pleasure.

Plan the size of the herd to fit the amount of pasture, the feed supply, and financial resources. In general, herds can be built up to the capacity of the farm by natural increase.

Feeding for Milk Production

MILK production studies have been made at the Agassiz Experimental Farm, B.C., where a herd of Holsteins gave an average 305-day production of 12,841 pounds of four per cent fat-corrected milk. None of the cows had special attention, except in cases of sickness. The feed included home-grown hay, grass and corn silage, and grain mix, 14.5 per cent protein, fed at the rate of one pound per four pounds of milk in winter, and one pound per eight pounds of milk on pasture.

The four highest 305-day records were 18,659, 17,928, 17,411 and 17,398 pounds of four per cent fat corrected milk. All four of these cows were kept in a loose-housing barn, but in spite of this, there was generally no difference in milk yields between cows in loose housing and stanchion barns. It was noted at Agassiz, however, that loose housing required less labor and less bedding, but a higher roughage consumption.

Feed Pellets Now Made to Order

PAILOR-MADE feed pellets can I now be bought according to the feeder's own formula and the size he wants, provided that he is ordering several tons of feed. This means that they can contain the right mixture of hay, grain and supplements for the class of stock to be fed.

Tests were run at the Scott Experimental Farm, Saskatchewan, with pellets as the only feed for calves from weaning to finishing at 800 pounds in the case of bulls, and to 700 pounds for heifers. Six bull calves were fed pellets, and six had chop and hay in a similar mixture. Each was fed individually and weighed each week. The average daily gain from weaning to finishing weight was 2.2 pounds with chop and hay, and 2.1 with pellets, but 630 pounds of hay and chop was needed per hundred pounds gain, compared with 620 pounds of pellets to produce the same result.

Meanwhile, four heifers were fed chop and hay, and five were on pellets, with an average daily gain of 1.56 pounds on chop and hay, and 1.76 pounds on pellets. It took 787 pounds of chop and hay per hundred pounds gained, and 669 pounds of pellets. In all cases the rate of concentrates to hay was two to one throughout the tests.

Insects Cut The Milk Supply

77HEN insects harass dairy cows all summer, milk profits will go down. The answer, according to E. H. Fisher, University of Wisconsin, is barn fogging.

The best kind of barn fogger, he claims, is a four-nozzle model that hangs in the center of the barn, enabling each nozzle to aim the insecticide mist over a large area without moving the unit. It gets into each corner, and spreads the fog evenly.

The compressor should be kept at a minimum of eight pounds per square inch at the nozzle for barns up to 60 feet long. This should be increased to 16 pounds or more for barns up to 100 feet. Larger barns need two fogging units.

The procedure is to fog the barn with all the cows in it, but just before milking. This gives the cows a protective coating of insecticide to ward off flies and mosquitoes when they return to the pasture. About one ounce of insecticide is needed for each ten feet of barn length.

Measuring Back Fat On Hogs

THE prime factor in choosing a superior pork carcass is the proportion of fat and lean meat. Too much fat lowers carcass grade, and, what's more important, the price the hog producer receives.

Until recently, the only method of determining fat was direct measurements made on the carcass after the animal was slaughtered. An estimate of the fat-lean ratio in a line of breeding stock could thus be made only by the records of slaughtered litter mates or progeny. In such an indirect method of appraisal there is always the chance that a particular animal, chosen for breeding purposes, may be inferior to his tested litter mates. Sorely needed was a way to accurately appraise the carcass of a live hog.

This need has been met by Purdue University scientists with the development of an electronic device called a "lean-meter." This instrument distinguishes between surface fat and lean tissue, by utilizing the wide difference between the conductivity of fat and muscle-fat being a poor conductor, and lean a good conductor. It consists of a slim needle containing the proper electrodes, and an indicator which shows whether the needle is in fat, or muscular, tissue. Depth of penetration of the needle is measured by a scale calibrated in tenths of an inch.

In tests at the University of Alberta, where selected hogs were tested with the lean-meter prior to slaughter, the instrument was found to give accurate back fat measurements, which, in turn, provided a good indication of the total amount of fat in the carcass. The leanmeter is expected to be of considerable value to the swine breeder.



[Guide photo

Recording the back fat measurements of a live hog with the "lean-meter."



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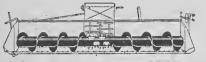
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FIELD



Larry L'Arrivee and John Gager at work in the apiary at Brandon Experimental Farm, Man. Beekeeping is increasing in importance for pollination of crops.

Irrigation After Heavy Rain

WHERE it is necessary to irrigate a whole field, as in some semiarid sections of British Columbia, the question arises whether irrigation is needed after heavy rain. The Summerland Experimental Farm has made tests with soil moisture blocks, which have shown that irrigation must be adapted to rainfall, except for light rains, which can be ignored.

The danger is that when irrigation water is applied to land that is already wet, heavy soil can become water-logged and nutrients may be washed out of it. On the other hand, by waiting until the soil is extremely dry at the starting point, it would be necessary to irrigate the whole field in a day or two to avoid wilting and crop damage from drought.

The procedure recommended by Summerland after heavy rains is to wait only a day or two after the rain before starting to irrigate, to apply a light irrigation at first, and then to increase the amount of water sufficiently to wet the soil down properly. In this way, the field will be covered before the far side of it dries out too much, but excessive watering is avoided.

If water delivery to the farm makes it impossible to vary the amount of water properly, it may be advisable to start irrigating soon after the rain stops, even though excessive water may be applied. This is better than a drought.

Swath Before Selkirk Shatters

SELKIRK wheat, which shatters more easily than Thatcher, is likely to give reduced yields if swathing is delayed. An attempt to find the best time for swathing has been made by the Regina Experimental Farm, choosing a uniform field of Selkirk and cutting swaths every day for 21

The first swathing was done in the late milk stage, and the last at full maturity, when some shattering had occurred. Yields increased as the date of cutting was delayed, until the 17th day, but yields went down after that, indicating that there was some loss through shattering. Yields were almost as high three days before and one day after the 17th day.

Selkirk cut on the 17th day contained 40 per cent moisture, and was in the stiff dough stage. It yielded 35.8 bushels and weighed $62\frac{1}{2}$ pounds per bushel. The wheat cut on the 14th day contained 45 per cent moisture and yielded 33.8 bushels, also weighing 62½ pounds per bushel.

More tests will be made this summer, but for the present the recommendation is that swathing begin when the crop has reached 45 per cent moisture, or as soon as it reaches the stiff dough stage. It should then be possible to get the crop off before

shattering has occurred.

Horizontal Silo Reduces Hand Labor

BUNKER-TYPE, horizontal silo has been used at the Lethbridge Experimental Farm, Alberta, during the past three years, and the grass silage has been self-fed successfully to dairy cows. This grass was mainly excess growth from an irrigated pasture mixture.

In the first year, nearly two feet of silage was spoiled on the top due to too much drying and too little packing. Since then, the silage has had additional water sprayed on it after every interruption during the filling of the silo, and packing with a wheel tractor has been continued for two weeks after the silo was filled. This practically eliminated spoilage on the

The silo is 84 feet long and 16 feet wide, with a capacity of about 175 tons of grass silage. This is more than enough to feed 35 to 40 cows through the winter. A self-feeder, made of two by six lumber, is suspended from a telephone pole and anchored at the bottom. Six inches of feeder space per head is adequate, and even less is needed if cattle have free access to it. Waste in feeding is practically nil, and the only labor has been in moving the feeder once or twice a week.

Freezing, even ir, sub-zero weather, has been largely avoided by hanging burlap bags over the feeder openings, and by extending a tarpaulin from the main body of silage to the telephone pole.

H. J. Hargrave has found th's type of silo at Lethbridge easy to fill with. out special equipment, and handlabor has been eliminated by using the self-feeder. He feels that many beef cattle, as well as dairy cattle, enterprises would find such a silo helpful for handling and feeding roughage.

Ring Rot Prevention

THE best guarantee against bacterial ring rot in potatoes is the use of high quality seed, but assuming this has been done, it is also important to disinfect machinery used among the potatoes, especially when it is being moved from one farm to another.

The Field Crops Branch of the Ontario Department of Agriculture says there are several satisfactory materials for disinfection, including quaternary ammonium compound, which should be used at the rate of one pint in 35 gallons of water. Others in common use are two per cent Lysol, one pound of bluestone in ten gallons of water, or one pint of formalin in 30 gallons of water.

Bags should also be soaked in disinfectant for two hours, and yearly whitewashing of storage space is highly recommended.

Grain Yields Better with Fertilizer

A N average increase of more than five bushels an acre of wheat on fallow was gained by using 40 pounds per acre of ammonium phosphate fertilizer (11-48-0) on 11 Manitoba illustration farms last vear, according to the Experimental Farm, Brandon.

The highest increases were 10.6 and 9.4 bushels per acre at Katrime and Morris, respectively, and the lowest was 2.5 bushels per acre on the light-textured soils of Pipestone. The same fertilizer was applied to barley on fallow at Silverton, and increased the yield by 17 bushels per acre.

Yellow Rocket Spreading Rapidly

THE weed that has spread more than any other in Ontario recently is yellow rocket, or winter cress. It has often been mistaken for wild mustard, but it flowers earlier and has smaller flowers than mustard. Growing most abundantly in low, damp areas, it is found in meadows, pastures and on roadsides in practically every province.

Following a dense cluster of dark green, many-lobed leaves in early spring, upright branch stems and clusters of yellow flowers emerge, and then the slender pods develop. It is spread mainly as an impurity in grass and clover seed, and is best controlled by cutting early and ensiling, unless there are just a few plants which can be hand pulled. It can also be controlled by spraying 2,4-D, but the high rate needed may damage legumes.

Yellow rocket is a primary noxious weed. It may be either a biennial or a short-lived perennial, but spreads only by seeds in the first year.



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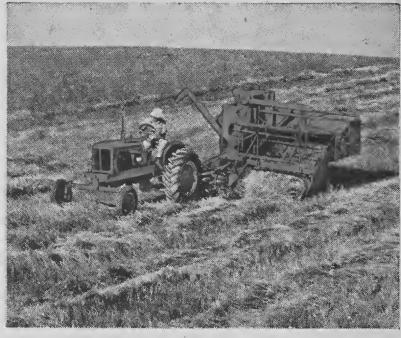
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When Does Lettuce Bolt

A PLANT breeder has a very difficult task, and nature seldom permits him to please everyone. Climate creates different conditions in widely separated areas. Take, for example, the tendency of leafy vegetables to bolt, or throw up seed stocks. This tendency is undesirable to everyone except the seed grower.

At the Saanichton Experimental Farm, Vancouver Island, a variety test of leaf lettuce was conducted last year, during which data were recorded at about weekly intervals as to the relative rate of bolting of these varieties. Of ten varieties, four had begun to bolt by August 2: one, 100 per cent; another 25 per cent (94 per cent by August 8); another 15 per cent (88 per cent by August 6); and the fourth, two per cent (52 per cent by August 24). Bibb was the quickest to bolt (100 per cent by August 2), and Slobolt the slowest (none bolted by August 24). Station officials point out that the newer varieties are much slower bolting than the standards such as Grand Rapid and Black Seeded Simpson.

Timely Note About Raspberries

D. H. DABBS of the Experimental Station, Scott, Saskatchewan, has a timely note for small fruit growers. He points out that it is better to do the pruning of all small fruits in very early spring, although it can be done in the fall, if desirable. Raspberries, however, should have their fruiting canes removed and burned as soon as the harvest season is over.

The method of pruning small fruits varies according to the age of the wood on which the fruit is borne. Red and white currants and gooseberries, Mr. Dabbs reminds us, bear their best fruit on two and three-year-old wood. Stems that are older than three years become unproductive. Black currants, on the other hand, bear most of their fruit on the growth of the previous season. This means that a good supply of rigorous young wood is desirable. While a well pruned bush of red or white currants or gooseberries will

have about three stems each of oneyear, two-year and three year canes, a black currant bush will have about six sturdy one-year-old stems and from two to four stems that are two and three-year-old, provided the older wood has rigorous shoots.

Raspberries are best pruned immediately after harvest, primarily to keep the plants healthy. This means picking out all of the canes that have fruited, cutting them off at ground level, at the first convenient time after harvest is completed. The following spring, the young canes can be thinned by removing the weak ones and then cutting out enough of the stronger ones to leave a 15 to 18-inch row, with canes as evenly distributed as practicable, but not closer than six inches apart.

Grass Around Apple Tree Trunks

EVERY apple grower knows that grass growing around the trunks of apple trees invites mice damage during winter. Also, if the grass is chopped away in the fall, it creates a low spot around the trunk which leads to standing water in the spring and a bothersome growth of suckers. The federal experimental farms at Kentville, N.S., Harrow, Ont. and Saanichton, B.C., have found, after several years, a chemical method which promises satisfactory grass control, if used shortly after grass growth begins in the spring.

Of the several chemicals tested, dalapon gives what is described as "excellent promise of satisfactory results." Orchard grass, the fescues, Kentucky bluegrass and twitch or couch grass were controlled for the entire season, with dalapon at ten pounds per acre, or 1.5 ounces per tree. The trees were not affected and broadleaved plants, such as ladino clover, alfalfa, dandelion and dock, were scarcely affected. To apply, use five pounds of dalapon in 100 gallons of water, and use one-half gallon of the solution per tree, with a lowpressure sprayer or watering can. If all grass growth beneath each tree is to be controlled, use no more than two gallons for each tree area. Thoroughly cleanse the equipment after use.

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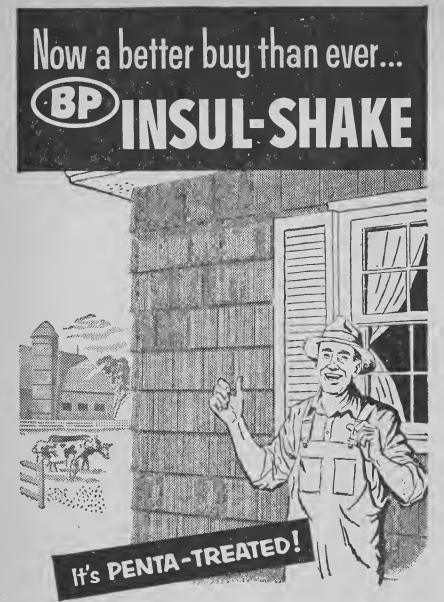
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The importance of balanced feeding is illustrated by these extreme cases of deformity, which are caused by the absence of riboflavin in the ration.

Wide Variety In Laying Capacity

USING White Leghorns, the Lethbridge Experimental Farm has been investigating the improvement of egg production through progeny tests. Various groups of unculled White Leghorns were received from the Central Experimental Farm, Ottawa, as day-old chicks, and were kept in brooders, on range and in the laying house until they were 500 days old.

With 886 birds on test in 1955, the average production on a five-day trap week basis varied from 154 to 180 eggs per bird in the six groups. The average egg weight varied from 59 to 62 grams. Some groups averaged 164 days when they laid their first eggs, others averaged 183. The average mortality for all groups was eight per cent for the 340 days in the laying house.

The tests are continuing, and it is hoped to determine whether careful selection will keep production higher.

Keep Layers In at All Times

BECAUSE 75 to 85 per cent of the feed consumed by poultry kept for laying is used for their maintenance, the cost of feed is much the same whether they are laying or not. Narrow profit margins on eggs make it essential to pay attention to egg numbers and quality, which are largely dependent on feeding methods.

The most successful method tried at the Brandon Experimental Farm, Man., is to keep layers inside at all times. The birds then have the same balanced ration both winter and summer, and insulated houses keep them comfortable at all seasons. In this way, production can be maintained in summer at a relatively high level, even though egg quality is lowered as the laying period progresses.

* Many poultrymen think that if birds are turned outside, they will balance their own ration, provided that they are given some cereal grains. In fact, these rations are inadequate, according to Brandon tests, especially when there is not enough pasture, or forage plants are past their best. A high consumption of green grass, by layers forced to fend for themselves, tends to produce watery whites and dark yolks,

and grades are lowered. It is the mash in the ration which gives them the nutrients both for egg production and egg quality.

Disease Hits In Five Forms

FOWL leucosis complex, or range paralysis, causes heavier losses in North Dakota than any other poultry disease, according to North Dakota Agricultural College. The disease may show in any of five forms, as follows: Nerve type, birds become paralyzed; eye form, shown by grey eyes, blindness or deformed pupils; tumor form, involving enlarged internal organs; enlargement of bones; and blood form, in which birds are anemic and thin. The disease can be transmitted through the egg, and very young chicks are most susceptible.

The recommendations for control are that poultry grounds, buildings and equipment should be kept clean, and young birds should be separated from other chickens. Most birds become infected during brooding, but signs of leucosis may not appear until the pullets start to lay.

Right Time To Market Turkeys

THE difficult part of marketing turkeys is in avoiding the need to go on feeding them beyond the age when they are first ready for market. If not, they will eat away your profit steadily, and their gains will decrease rapidly.

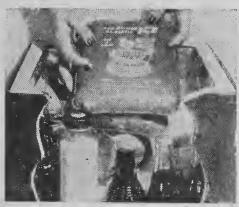
They do not usually take on a satisfactory market finish until they are around 26 weeks of age, in the case of hens, and 28 to 29 weeks if they are toms, according to the Swift Current Experimental Farm, Sask. Maturity varies with different strains, but it is possible to hasten maturity with proper management and care.

To hit the right time for sciling, it is a good plan to market a dozen birds when you think they are about finished. These will then be checked by the graders, who can advise you whether the rest of the flock is ready, or if it should be held for another week or two. By this means, the cost of unnecessary feeding, or loss of grade through sending turkeys to market before they have a satisfactory finish, can be avoided.

WHAT'S NEW



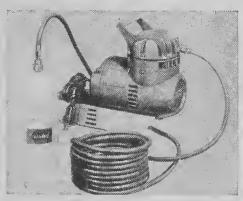
Claimed to be the first automatic nozzle cluster for boomless sprayers, the "Swath-O-Matic" can operate in side winds better than conventional equipment, say the manufacturers. (Hanson Equipment Co.) (130)



Sno-Gel is a substitute for ice, but stays colder longer than ice and is re-usable a thousand times, say the manufacturers. This gelatin substance is "charged" in the refrigerator freezer, and is used for keeping food and drinks cool on picnics. (Braided Products Ltd.) (131)



This brush cutter, for clearing brush, heavy undergrowth and overhanging branches, has a six-foot reach, and a ten-inch circular blade. The manufacturers claim it can be converted into a chain saw or drill. (Mc-Culloch Motors Corp.) (132)



For fighting insects by barn fogging, the Fogmaster saturates cattle with insecticide in the barn and keeps flies away both there and in the pasture, according to the manufacturers. The sprayer can also be used for paint spraying, caulking and greasing. (Thomas Industries Inc.) (133) \vee

For further information about any item mentioned in this column, write to What's New Department. The Country Guide, 290 Vaughan St., Winnipeg 2, giving the key number shown at the end of each item, as—(17).

Fertilizing with Gas

Continued from page 10

is an advantage. What's more, the transformation of ammonia into nitrate does not take place unless the soil temperature is 55° F., or over; which means that you can apply it in the fall and it will spend the winter as ammonia, cuddled close to the clay in the soil, and remain proof against melting snows, which could easily leach nitrate away.

Advocates of ammonia claim other advantages, too. They maintain that its nitrogen can be used directly by the plants, instead of having to be changed into nitrate first; that the ammonia type of nitrogen is easier for plants to use than nitrate nitrogen; and that it helps unlock other needed elements, such as potash, in the soil, and make them available to the plant. So far, the truth seems undecided.

But it seems certain that Canadian farmers will be using more and more nitrogen fertilizer. Even on the prairies, where the need for phosphate has made fertilizers like 11-48 very popular, an additional dressing of nitrogen seems to bring increased yields. Indeed, the extra straw added

to the soil by combine harvesting is so low in nitrogen itself and gives so much extra work to the nitrogenfeeding bacteria which decompose it, that extra nitrogen ought to be added to supply the deficiency.

So ammonia, the most modern and convenient way to apply nitrogen, is pretty sure to find a considerable and growing market among Canadian farmers. And if, as seems likely, it becomes cheaper than nitrates, ammonia may well turn out to be, in Canada as in the United States, the most popular of all fertilizers for agricultural use.



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Discover how the D2 promotes greater farming efficiency. Call your Caterpillar Dealer for a D2 demonstration. Check the D2's diesel economy, crawler traction, big working capacity. See how much you can do with heavy-duty implements. For example, watch the D2 handle dirt-moving, clearing, land forming jobs that ordinary "limited-duty" farm tractors can't. Make that date with your Cat Dealer today!

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MAKE YOUR FARM MORE PRODUCTIVE . . . D2 and Tool Bor Bulldozer clear land and grade it for this Ontorio farmer. The Cot "Swing-Around" Tool Bar is quickly adaptable to reor-mounted tools.



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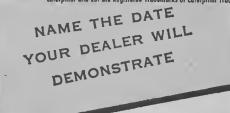


HANDLE LARGER EQUIPMENT . . . 5 bottoms is a proctical load for this new D2 shown ploughing on on Ontorio form. Work deep and wide, handle several tools of once. Save manpower, field time ond fuel.



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FARM TRACTORS AND BIG HITCHES ... see how farmers have cut their operating costs by using big equipment pulled by Cat Diesel Tractors. See your Dealer or write Caterpillar Tractor Co., Dept. CG76, Peoria, Illinois.



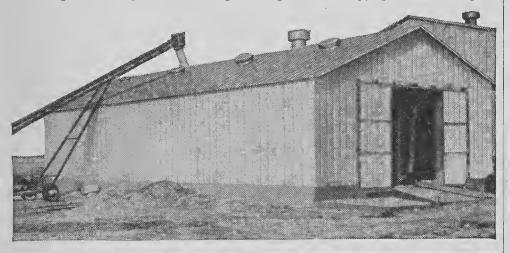
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Never idle. Butler storage buildings perform a variety of farm uses when no crops are in storage. Big doors, pole-free interiors, straight sidewalls permit easy maneuvering of large machinery, spacious storage.





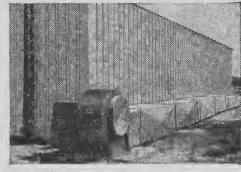
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WORKSHOP

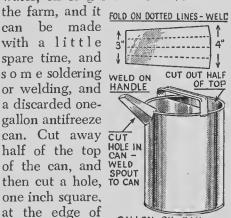
Practical Ideas Can Make Life Easier

Economical ways to adapt and repair machinery and equipment on the farm

Screw Tightener. If a screw is loose in its hole, remove it, pack the hole with steel wool, replace the screw, and you will find it gives good service for some time.—S.B., Sask.

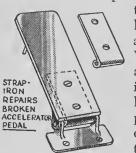
Handy can. This is a very useful water, oil or gas can to have around

can be made with a little spare time, and a discarded onegallon antifreeze can. Cut away CUT half of the top HOLE IN CAN - of the can, and SPOUT then cut a hole, TO CAN one inch square, at the edge of the closed side,



to take the spout. A sheet of pliable metal, three inches wide at one end, and four at the other, can be bent to form a spout, as shown. Weld or solder this on to the can, where the hole is made. Then weld a handle on either side of the top of the can. A notch cut in the outer end of the spout makes pouring easier.-D.P.M.,

Accelerator repair. I have found a better-than-new repair for an accelera-



tor pedal which has broken loose at the bas'e. Wrap the end of a piece of strap iron around the hinge of the pedal, and secure it under the pedal with

two counter sunk stove bolts, as shown in the diagram. This prevents any sideways movement, and there is also less chance of ice forming under the pedal.-V.B.M., Sask.

Hint for Fishermen. Log jams often attract the largest fish. These retreats provide occasional wood grubs, which sink into the lair and are readily accepted. Get some of these grubs and thread one on a small hook, tied to a fine leader. Then cast, dropping it lightly at the edge of the jam to sink without using a sinker. If the fish does not grab it at once, let it lay motionless for awhile.—M.M.E., Alta.

Handles for Pliers. When using ordinary pliers with a forge, the

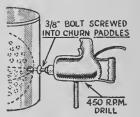


handles are so short that it's easy to burn the fingers. To lengthen the handles, slip a piece of pipe

over each of them, pinch the pipe so that it fits snugly, and wrap ordinary friction tape round the ends which are to be held in the hand. This is as satisfactory as the more expensive tongs designed for blacksmith work. - S.B.,

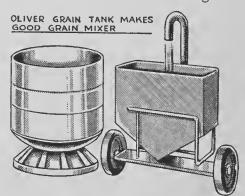
Electric churn. To change a hand churn into an electric one, you can

use a 450 r.p.m. electric drill. Saw the head off a %" bolt, which should be about five inches long. Screw the bolt into the



paddles in the churn, and attach the drill to the other end of the bolt when you want to use it. I have found that this cuts down churning time to less than five minutes, if the cream is at the correct temperature, but you need to have someone holding the lid on the churn while it is operating. The churn I use is a Triumph.-G.P., Man.

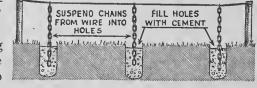
Feed mixer. A discarded Oliver grain tank will make a good 600pound feed mixer and unloader. It can handle shelled corn and other grains.



Mount it on wheels, connect PTO with the knuckle from an old corn picker, and then for mixing, turn the spout into the tank, and swing spout into feeder or bin for unloading.-G.M.E.,

Waterproof Flashlight. To make a flashlight waterproof, slip a long balloon over it and secure the end with rubber bands. The light will shine through the thin rubber of the balloon, and the switch can still be operated.-J.W.W., Man.

Fence Post Anchors. To make post anchors, dig out holes with an auger, and then suspend lengths of chain into each hole, suspending the chains from a tight wire between two stakes. Fill the holes with concrete and dig it out



when hard. These make the anchors with chains attached. When using, secure brace wire to the anchor chains. -M.M.E., Alta.

Turnip Cutter. If you have to cut a lot of hog feed, such as turnips, a useful implement is an old scythe blade, and it is easy to fit a short handle to one end of it.—S.B., Sask.

Young People

On the farm and at home



Young operator demonstrates his skill.

Learn And Live!

7 E strolled down the midway at the provincial fair, examining displays of poultry, grain and other 4-H Club activities. We noticed that the crowd seemed to stop longer at one particular booth before continuing along the midway. Curiously we approached and looked in.

A good-sized mirror hung on the large bare wall at the back of the booth. Tacked above this mirror was a placard on which was printed: "Your stantly our eyes lowered to the mirror and we beheld our own reflection staring back at us!

That safety message struck home and started us thinking. We realized as never before that safety depends mainly on our own thinking and actions. A pitchfork, an electric fan, a powerful tractor, even simple hand tools such as screw drivers, hack saws and chisels become dangerous implements in the hands of a careless, thoughtless person.

Some 4-H Clubs promote safety by checking their home farms. They divide their members into six groups, each with one area to inspect: buildings and farmyard, machinery and hand tools, animals, highways and fire, health and sanitation and the farm house. After each group has made a thorough check of its particular area, a complete list of hazards is written up and given to the club member who lives on that farm. Then the safety team moves on to inspect another farm. Two weeks later the inspection team is back - this time to check off all hazards that had been corrected by the club member and his

What hazards did these safety conscious 4-H members find? Broken ladder rungs, faulty electric cords, boards with rusty nails, a loaded gun, poisons left within a child's reach, defective chimney, a tractor left in gear, a bicycle without a reflector, a pitchfork with upturned tines lying in the hayloft, a curved driveway with view obstructed by bushes, a fire and health hazard of papers, old clothes and junk, a rotted post in the fence surrounding the bull pen, a loose hammer head and many more. The members of the farm family had become so accustomed to these hazards that they no longer thought of them as dangerous. Now with their young people talking safety, they became interested' and helped with repairs to make their home a 4-H safety inspected farm.

It has been found that the greatest number of tractor accidents occur among young people in the 10 to 14 age group-operators in the 15 to 19 age group had only slightly fewer accidents. Operators in the 20 to 55 age group hold the record as the safest tractor drivers. What do these facts

Operators in these young age groups may be operating a machine without knowledge of how a tractor behaves under certain conditions and fail to recognize danger until it is too late. Some of these operators were too young. Though physically strong enough to handle a tractor, they had not yet developed sufficient sense of responsibility and the ability to concentrate on the job in hand. It is just as necessary that an operator demonstrate his ability to handle a tractor wisely as prove his ability to drive a car safely. Manufacturers make tractors safe-they can't make them fool-

4-H tractor clubs are leading the way in teaching young people how to handle tractors. Its members learn the working parts of the machine, tractor repairs, correct operation, how to avoid accidents and what to do in an emergency. Their attractive displays help to put across safety messages.

Those engaged in agriculture have more accidents than people in any other major industry in Canada. "Let's plant, cultivate and harvest safety!" V

4-H Club Roundup

A CCOMPANIED by R. H. Graham, Assistant Director of the Livestock Branch, four Ontario members are touring Scotland and England: Myrtle Stewart, David Barrie, Eleanor Lillico and Malcolm McLaren.

Saskatchewan's first lamb club will be organized at Senlac with the assistance of the Co-operative Woolgrowers' Association. Each member will start with ten ewes. The first forestry club had its initial meeting with Mr. C. Freemont as leader and 40 enrolled members.

4-H Club Week dates for Alberta have been announced: Olds School-July 23 to 28 and July 30 to August 4; Vermilion School-July 16 to 21; Fairview-July 9 to 14. A delegation of 4-H'ers from Montana will attend one of the schools. The Foothills 4-H Sheep Club was given a demonstration by Mr. Hebson showing shearing, handling and tying fleeces, dipping and docking tails.



There's iodine in every bag and block of Windsor's Iodized and Cobalt-Iodized farm products right down to the last lick!

And if you don't think that's a piece of hot news, Mr. Boss, let me tell you that if you want us cows to be healthy and to bear healthy calves, you've got to be sure, quite sure, that we get our daily iodine. We need cobalt too, but it's mostly iodine that I'm talk-

The Windsor Salt people have now really done something extra for us. They are iodizing all their Iodized and Cobalt-Iodized products for livestock with potassium

iodate, now that the Canada Department of Agriculture has approved, because it lasts so much better than the old-fashioned iodide ever did.

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"lodized to the Last Lick"

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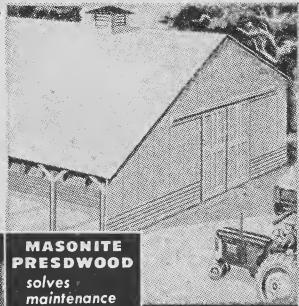
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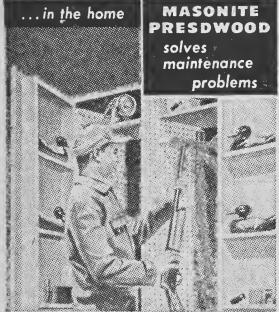
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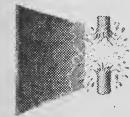
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A convenient, ranch-type house, landscaped with the help of established trees, will provide an excellent second home on the modern, family farm.

Second Home For a Two-Family Farm

Here's an idea for those who plan to retire, but would still like to stay on the farm

by L. J. SMITH

NOO often, it has been said, farmers retire to the local town or city, after their full-time agricultural work is over. Living in town under restricted conditions isn't always as easy, or satisfactory, as one might think, after being so, active on the

There is the alternative of staying on the farm, turning the old home over to the son, or son-in-law, who operates the place, and building a nice convenient little house right where one has spent the major portion of one's life, among the old friends and neigh-

The accompanying plan-all on one floor-is offered to meet this situation. The interior is usually compact and convenient. Coming in from the garage, or by way of the front door, there is easy and direct access to every room. The laundry-storage-garage space, about 17 by 20 feet, was first planned as one room, but dividing the area with a light, inexpensive partition, produces a better arrangement.

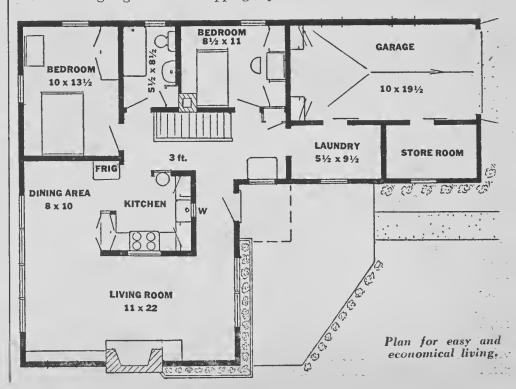
Just think, you who live where you have real winters, of dropping down the balanced garage door and stepping right into the hall, with no puddling through the rain, mud or snow. And, still nicer, getting into a warm car, which always starts easily, and away you go without even stepping outdoors. This is real auto travel comfort.

Both the laundry and storage areas are convenient and well lighted. Note also the little outer clothes closet near the laundry door, and the sewing table under the window on the opposite side of the hall.

The two bedroom-bathroom combination is most convenient, the bathroom being equally accessible from all parts of the little home. The single bedroom has a combination double closet with dressing table between, a very compact, convenient arrangement.

The living room is 11 by 22 feet, well lighted, with a nice fireplace along the outside center. The raised hearth extending a foot or more on one side, is an added attraction to a living room. If desired, a high window or two may be used above the bookcases, beyond the fireplace.

The compact dining room really is part of the living room, each making



the other appear larger since there is no partition between.

Now to the kitchen. It is of the inside or "island" type—no waste space. If good overhead ventilation is provided, such a plan works out very well. To secure more light and give a more "roomy" feeling, a large window is provided in front of the range looking toward the fireplace. Light also comes from the dining area.

The refrigerator is close by, at the right of the entrance to the dining room. An ample storage space is also provided on the other side, for table linen, silver and dishes. If desired, one may arrange for a little window, shoulder 'high, above the sink at "W," so the patio area and front hall can be seen while working in the kitchen, which really is the center of this little home.

Concerning the heating system, a basement usually is provided at least under the bedrooms, kitchen and dining room, with the furnace under the single bedroom. Here, also, will be ample fuel storage space, and bins for fruit and vegetables.

The exterior of the main part of the building, which is 36 feet long, should, for heavy winter snows, have a third pitch gable roof, though the economical flat roof is used a lot. The garage-laundry wing should also have the same type roof which would give a better appearance. Incidentally, this wing should have a concrete floor draining to the big door.

A very common outer wall construction these days is to use four by eightfoot wallboard on the studs, and cover with vertical boarding — one by 12's with battens, or vertical T. and G. boarding. This, with the large living room windows set tightly in place, results in a very warm wall, with no drafts.

The entrance door should be roofed over as shown by the broken lines. This little home will be easy to keep up, also easy to heat. A fire in the fireplace mornings and evenings, will take the chill off the living rooms, and add to the cheerfulness of the place.

Don't be in a hurry about cutting down any trees near where the second home is to be located. In large cities, old, knarled apple trees are carefully saved as part of the landscaping, especially if the home is of the ranch type. Also, minor changes may be made in this plan to meet local needs.

Animals Their Own Doctors

by DAVID GUNSTON

T is generally believed that nature is ruthless and indifferent where disease amongst wild creatures is concerned, and that any animal fallen sick or injured is doomed to die, or be killed by its own kind.

This is not strictly true. Many wild creatures do, in fact, act as their own doctors and effect their own cures, or surgery.

Most people know that a domestic cat will eat grass if its stomach is upset, but other animals also eat various leaves and grasses for their medicinal value. They always choose special plants, avoiding all others, which

seems to suggest an instinctive knowledge of the value of herbal treatments for internal complaints.

A man who once caught a gibbon noticed that it had a curious swelling on its side, over which ran a long scar. Curious to see what was wrong the man had the animal operated upon by a veterinary surgeon. The swelling proved to be a large ball of masticated leaves of a plant known for its medicinal value to man. The gibbon had obviously suffered a wound in its side, and had gathered these leaves, chewed them into a ball and stuffed them into the injury. They did the trick, and the wound healed over.

An orang-outang performed a similar feat of self-treatment. Kept in semicaptivity it was one day seen to be holding its cheek in dejection, very much like a man in need of a dentist. It had actually applied a lump of damp clay as a cold poultice to its face, to alleviate a gumboil in its mouth. A few days later it pulled out a rotten tooth, which it showed to its master with obvious pleasure!

A MOORHEN was once found with a primitive plaster cast at the knee joint. The leg bone had grown together and was fully healed, but the cast of dried clay

must have been put there by the bird itself. Woodcock are alleged to do the same thing to leg injuries—in one recorded case applying a splint of clay and stiff grasses to a limb. First-aid of another kind is often to be seen in the ant world, where a worker with a broken leg will have it swiftly amputated by the jaws of one of its fellows. Ants also isolate and tend sick members of their communities, running the nearest thing to hospitals in the world of nature.

Black bears and other mammals, coming out of hibernation in the spring, are known to search for certain berries and fruits which have a

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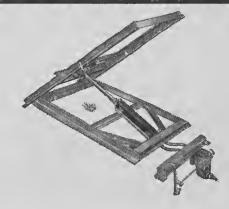
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for every farm hauling job! Prices have been kept low to meet the farm budget. You'll be amazed at how little this time saving, money making equipment costs. Ask your dealer for particulars now, before the busy season sets in.



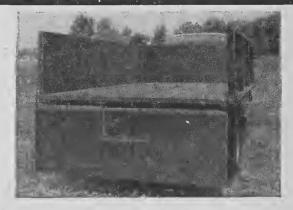
No. 6 FARM HOIST . . . has revolutionary link and shaft design for safe, powerful, efficient leverage. Costs less to buy, to maintain. Fits 12' or 14' bodies. BRANTFORD "LEAK-PROOF" GRAIN BODY . . . features tightly sealed joints, steel-reinforced grain sides, and uniweld steel understructure to prevent platform warping . . . to eliminate grain leakage.



No. 4 FARM HOIST... this sturdy new farm-hand has amazing lifting power. Handles 6 to 9 tons depending on body length. Built for any truck body, it was primarily designed as a low-cost farm unit. Ask your dealer about this hoist.



CHOREBOY DUMP BODY AND S-33 HOIST... the lightweight Choreboy Body and S-33 Twin Cylinder Hoist are ideal for ¾, 1, and 1½ ton trucks. The S-33 Hoist can be purchased separately and has been designed to convert your present pick-up truck to a dump unit with a thousand new uses.



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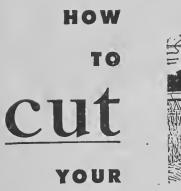
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marked laxative effect, presumably to tone up their systems after their long winter sleep. Deer prefer lime-filled water when growing new antlers, so that these will sprout quickly, while pregnant mulé deer, found in North America from Alberta to Mexico, will eat only certain kinds of vegetation until their fawns are born.

Animals with bleeding wounds, or cuts, have been known to place spiders' webs on them, the styptic properties of which are well known to us. And the tiny, and to us, unpleasant, maggots which crawl in their hundreds inside the naked sores of some animals are never disturbed by the creatures involved. The grubs of mayflies actually feed upon the pus in the wound and thereby destroy dangerous bacteria and assist natural healing. This seems to be a case where animals know better than human beings, for, in like cases, we should be horrified by the sight of the maggots and at once remove them.

Loafing Barn For One-Man Farm

ONE-MAN dairy farm isn't a thing of the past, even in today's competitive economy," according to Roswell Bailey. To prove it, he designed a loafing barn and milking parlor for his 20-cow herd that has cut his work to a minimum. It also brings dairymen from right across the Niagara peninsula journeying to his place at Wainfleet, to size up his operations.

After its first winter, Mr. Bailey is more than satisfied with his barn. He hasn't had a case of mastitis for nearly a year; and chore time in the new barn is only half what it was in the old stanchion barn.

Most interesting feature is the feeding arrangement. He designed it so that hay and straw can be stored in the mow above the 36 feet by 48 feet loafing area, to be fed into the feed manger on the outside of the barn. It is thrown down an enclosed chute to the feed mangers along the outside walls. The cows are content to eat outside, even in cold weather, and the loafing area inside remains dry and comfortable.

Over-all length of the barn is 60 feet, and the final 12 feet is given over to the four-unit milking parlor, and the dairy. He installed a pipeline milker to facilitate the milking chore.

MR. BAILEY hired out the job of building the barn, and his total cost for the steel-sheeted structure set on a five-foot cement wall was \$6,400, and an additional \$1,700 to equip the milking parlor. Now he is set to handle 20 or more cows, with a little help from 12-year-old Paul, or Mrs. Bailey, on occasion. During winter, his cows have been remarkably healthy, showing only a heavier growth of hair to mark their additional exposure to the elements.

For his farm land, Mr. Bailey first of all plans 40 to 50 acres of hay and another 20 acres of pasture. Then, he fills in the cropping program with 30 acres of oats, a little barley, about 15 acres of wheat, and five acres of soybeans, some of which are fed to build up the protein in the ration. V



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Story of Achievement

An unusual horticultural society with an unusual president combine to bring distinction to Rosetown, Sask.

ANY a story of human achievement lies hidden in a casual news item, or in such bald statistics as the published results of an annual fair. You might have read somewhere that the Horticultural Society of Rosetown, Saskatchewan, put on a show last year which attracted 904 entries. Checking further, you find it was the largest horticultural fair in the province, and that the Rosetown group had only been in existence about two years.

It all started in 1953, when D. R. Robinson, extension horticulturist at the University of Saskatchewan, suggested to local garden fans that they start a horticultural society. At that time about eight Rosctown residents were enrolled in a mail-out service conducted by the University, called the Garden Guild. By the following year, the newly formed society had 50 members, and held their first horticultural show with 450 entries. That this membership could be increased to 300, and show entries doubled for the second annual fair last year, suggests a degree of enthusiasm and teamwork seldom found in organizations today.

One-half the members of the Rosetown Horticultural Society are farmers, and the other half townspeople. Each year, members receive one or two special plants to test-generally something not usually grown in their area. Although their activities cover the full range of horticultural crops, what is shown each year at the fair naturally depends a good deal on what kind of a season they have.

Like most groups, the Society soon found their ambitions hampered by a lack of funds. To overcome this, they entered the commercial field, and were the first horticultural society in their province to do so. This spring they sold several hundred dollars' worth of gladiolas and dahlias, plus two truckloads of bedding-out plants. They also sell various garden accessories not stocked by local stores, such as peat moss, and distribute bulbs they receive directly from Holland. The next step on their agenda is a shop of their own to handle the rising volume of business.

Members seeking information can apply to the complete library on western horticulture maintained by the Society. If they prefer visual

Allan Down, president, Rosetown Horticultural Society, and its spark plug.

lessons, they can visit the slide library, which is kept well stocked by several of the membership who are amateur photographers.

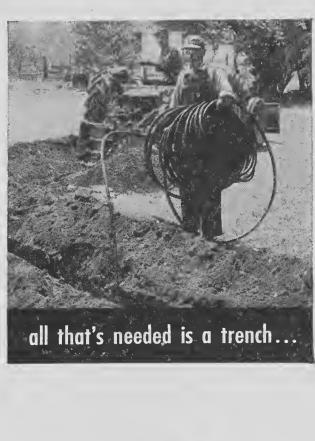
BUT the real story behind the Rosetown Horticultural Society is one of personal achievement. It is the story of the 33-year-old president, Allan Down. Although denied the use of his legs since birth, Allan manages a round of activities that would tax the endurance of anyone with no such handicap.

In addition to the horticultural society post, he is secretary-manager of the Rosetown Credit Union, secretary of the Board of Trade, and half owner of a local ladies' apparel store. The Credit Union, now in its fourth year of operation, has 350 members and assets totalling \$150,000.

Allan Down is married and has three children. Except for a year spent in eastern Canada (where he met his wife) he has lived all his life in westcentral Saskatchewan. He came to Rosetown from Flaxcombe in 1947, and over the past nine years has become one of the town's key citizens.

At home, Allan has a small greenhouse and a full-scale gardening operation, which is tended by Mrs. Down while her husband is at work. The day before The Country Guide visited him, he had helped in the planting of 2,000 hills of potatoes, a side venture shared with two others on a neighborhood farm.

The rapid advance of the Rosetown Horticultural Society is certainly no mystery, if their president sets the pace for the whole organization. V



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Men, Birds, **Exchange Work**

by C. DRUMMOND

NE of the strangest of odd birds, and one which by its chattering excites men into working for it, is the greater African honey guide, a tiny bird smaller even than a robin.

For years ornithologists doubted whether there was any truth in the native tales concerning this little bird. Why, indeed, should a bird try to guide men to a bee tree containing honey? Then outside observers - explorers in East Africa and elsewhere -found it was true enough, though a rare occurrence.

Further proof has come, within recent months, from the pictures of an expeditionary party exploring the Mara River east of Lake Victoria. In this area live the Wandorobo, a nomadic sub-tribe of the colorful Masai. Despite the constant intrusion of "civilization," this wandering tribe tries to maintain, intact, the way of life of its ancient ancestors.

Having no permanent homes, no cattle, no clumsy possessions to clutter up their lives, the Wandorobo go from place to place as they see fit, living as hunters. Their food is the meat of wild game, edible fruits, roots, and wild honey-and here they find the greater African honey guide their best friend.

When their supply of honey is running short, several tribesmen are given the task of finding more. Going into the jungle, they listen for the excited cheerful chatter of the greater honey guide. Their "listening" may go on for days unrewarded. Then, perhaps when least expected, the noisy cries of the bird are heard. The tribesmen answer with low, musical whistles -acknowledgement, as it were, of their interest! Then, always keeping the tribesmen in sight, the honey guide flies from tree to tree. As it approaches the honey tree the bird's chatter becomes louder and more excited.

T last the bird alights on its target, A or nearby. To check up, the tribesmen press their ears to the trunk of the tree. If a buzzing sound is heard they know they've reached the honey tree.

The next simple task is to light a fire close to the trunk. When this is going well, which means emitting clouds of smoke, the tribesmen light smoky torches to help to stupefy and ward off the angry bees.

With crude axes the natives cut into the trunk around the nest; and having uncovered the honey, proceed to extract it, placing it in small skin pouches for easy carrying. But always, by leaving some of the "loot" untouched, they remember their tiny friend. Though the bird eats the honey, it is apparently even more interested in the wax and larvae within the nest.

Thus ends-until the next timethis strange partnership between tiny bird and primitive man. Oddly, also, the greater honey guide not only gets man to prepare its food, but (like the European cuckoo), arranges for other birds to hatch its young!

The Wild Horse

Continued from page 12

meadow the stallion uttered a softer nicker and circled the band, as though making sure that all members were present. Then it led the way through spruce and jackpines to a higher

The great horse had reason to be wary, for this was really wild country. Often the baying of wolves was heard at night, or the long scream of a foraging cougar. Grizzlies were there, and the smaller blacks and cinnamons of the bear tribe. But the stallion was always vigilant, and boy and grandfather loved to hear him defy the wild marauders.

"How will we build the fence?" Ne-kick asked as they rode back in the hazy twilight.

"There will be no fence, except this," E-mo-shoom struck a match and held the small flame aloft. "I will use a flaming torch to fence your wild horse away from the meadow."

"Fire will frighten him—won't that make him much wilder and harder to

"Riding him is not my worry, little one," the dry chuckle sounded again. "You are the brave fellow who must sit a-top the stallion."

"Ai, sometimes the idea scares me."

"You are not yet ready. Now that the lariat begins to do what you want of it, there is other training you will need. Tomorrow, you and your pony must swim together."

By the time they reached the cabin the daylight was gone and they could hear the night noises. The booming hoots of horned owls, the wailing call of coyotes, sometimes the bugling of a bull elk. The boy went to his blankets at once, though not always to sleep. He liked to lie awake in the darkness, making mind-pictures about himself and the great stallion. Meanwhile, E-mo-shoom sat at the doorstep puffing on his pipe and staring out at the shadowed river and white peaks beyond. After a while the old man would turn and speak into the blackness of the cabin.

"Stop galloping that dream horse, grandson, and go to sleep!"

THEY went down to the river every day, where Ne-kick rode his pony out into the deeper pools. E-mo-shoom sat his own horse at the shoreline, his hand resting on the coiled loops of the lariat and the smoke rising from his pipe bowl in short, agitated whisps as he watched the youngster. There was risk to this part of the training, but the old man urged the boy to practice swimming many times in the weeks that followed. In addition, the youth swung the rope every day.

"Now you must ride your father's horses," the grandfather ordered. "All have been broken, yet none have been ridden since springtime and there will be wildness in them. You need to know something about riding a bucker, so practice on these. Start with the bay, who is the steadiest of the lot."

The bay did not buck at all, but the chestnut reared at once. Ne-kick

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stayed aboard until the animal settled down to good behavior. The third one was a raw-boned gelding that bounced out of the saddling chute with back arched and legs stiffened. When it switched ends and suddenly kicked at the sky, Ne-kick shot over its head and crashed to the ground.

"Are you hurt?" E-mo-shoom asked anxiously.

"Just jarred," the youngster sat up, rubbing a shoulder. "I'll try him again."

"Ehhh, now! I am a fool, letting you taste danger this way."

"Well, you told me nothing could be won easily."

"So I did. Still, your father left you in my care and my conscience scolded me when I saw you fly through the air just now. Boy, are you sure that you must have the big horse?"

"I am sure, E-mo-shoom."

"Hai! The time draws near for the test. Your rope work is swifter than any I have seen, while in the water you handle yourself like the otter after whom we named you. A few more rides on the buckers, then you are ready."

"Good! Let us go to the lake again, this evening."

Lying side by side on the hill and staring down at the watering place, the old man questioned the boy about the future. What happened after the breaking was done and the great grey became Ne-kick's horse?

"Why, I'll ride him from then on."

"But where, my grandson? Down to the fairs and rodeos, next summer when the family goes travelling?"

"Oh, no! I am like you, E-moshoom; I do not enjoy the crowded places. When the stallion is mine, I will ride him over the hump of Thunder Mountain to see the hidden valleys there, and I'll follow the banks of our river up to its start in the high passes."

"Look!"

The boy followed the old man's finger and saw the grey go charging across the meadow. The mares were bunched behind him, their heads all turned to watch. The leader darted in among the alders, rearing and shrilling out a loud whinney of rage. A skulking cougar streaked away, seeking denser cover up the mountain side. When the tawny cat was out of sight, the stallion returned to the meadow and led the mares and fuzzy-haired colts down the gorge to the drinking place.

"Ah, he's a fine brave one!" murmured the oldster.

"How soon will I be ready to ride him, grandfather?"

"The time is near. Already the poplars turn yellow and soon the Manitou's cloak of autumn will be spread. Your father may be on the way home, even now. Yes, the time has come."

O'N two successive mornings E-moshoom and the boy waited in vain beside the gorge, the old man fretting for his pipe while the youngster tense for a glimpse of the stallion. Both days the meadow had no fresh sign on it, though they once heard neighing from the mountainside.

A strong wind blew from the mountain on the third morning, carrying

their scent toward the water. The grandfather nodded his satisfaction at this. At the first hint of dawn he moved fifty yards up the draw to the screening shelter of a spruce clump. Ne-kick stayed close to the lakeshore, hidden by alders. As the light increased he saw mist rising from the water and A-misk the beaver chewing on the bark of a freshly cut poplar. A marmot's whistle sounded far up the slopes, where the first rays of the sun were shining. Then the boy came alert when a bird note came softly to his ears.

"The lark whistle!"

As the signal faded to silence, Nekick heard a muffled thudding from the unseen draw. Quickly he let the warm blanket slide from his shoulders. He was scantily dressed, with only a breech-clout flapped over his belt. A

knife was sheathed at one side, but the rope he held was his chief weapon. That, and all the careful training given him by the wise old Indian.

The boy thought about the two oilsoaked torches the old man carried. They gave off a strong smell and the grandfather had worried about that. But the wind was still blowing in the right direction.

A shrill snort of alarm. E-mo-shoom fired the torches and spurred his mount from cover. The stallion made a run for it, but the blazing fire-brands were out-stretched to block the path with smoky flames. At the last moment the big grey reared and whirled, turning toward the lake.

"He comes!"

Now the old Indian was screeching like a madman and Ne-kick charged out of hiding with a yell of his own.

Barred from the path, the stallion stood in trembling silhouette against the blue waters. In that instant, the rope hissed through the air and the loop settled over the animal's head. The horse plunged into the lake with a squeal of rage. Ne-kick's pony did not slacken its gallop, splashing into the water close to the heels of the wild one. The boy kept a tight rope until he saw his chance, then sent a small loop snaking down the yellow lariat. The hitch slapped over the raised snout of the swimmer; Ne-kick jerked it tight to complete his hackamore bridle. Next moment he jumped from his pony and half swam and half pulled himself to the stallion's side and forked its back.

The wild horse tried to buck, but the animal was low in the water under the unaccustomed weight of a rider.

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The best it could do was a furious lurching which hardly shifted the boy's position. Next the stallion reached around to bite, but the relentless pressure of the rope kept its jaws clamped together and the youngster soon forced the head away. Baffled, the grey swam toward the gorge.

"Hahhhhhh!" yelled the old man, whirling the menacing torches. "Back out, stallion!"

Fearfully the animal turned away, its hooves churning the water. It tried bucking again, grunting im savage frustration as it sought to rid itself of rider and rope.

"Easy, easy!" soothed Ne-kick, his left hand patting the quivering neck. "We can be friends, big horse!"

He was in complete control of the powerful stallion, thanks to the deep water. The swimming horse could not rear and jolt and kick like it could on land, while the Indian youth had weeks of practice at staying aboard a wet back. Ne-kick used rope pressure, steering the animal's head out from the shore. This time the stallion responded. It was gasping for breath, frantic with fright and yet helpless despite its strength. The boy eased the tension on the nose hitch, not wishing to hurt the fine horse. At that, the beast turned and pawed the water toward the bank once more. But the torches were still blazing and E-moshoom screeched like a lynx.

"This way," said Ne-kick, using both knee and rope to steer the horse. "That's right, my beauty. You no longer squeal, and your ears twitch like you might be listening. Hear me

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now, good horse! We can be friends, you and I. We can be happy together."

Once again the animal made a furious, prolonged attempt to buck and rear. Ne-kick had no trouble staying aboard, because the water absorbed the speed and power of the stallion's effort. Afterwards, the weary horse sank lower in the lake and turned toward the beach.

"No, no! Out once more, big horse! Stay in the water until you trust me. Then we will ride far together, grey stallion. Feel my hand and smell my scent, and soon we'll be friends."

Again the front and back legs surged together in a water-slowed buck. This time it was soon over, and the animal responded readily to the pressure of rope and knee.

"He is almost yours, grandson!" called the watching E-mo-shoom. "He'll soon know that bucking is useless, then you can come ashore."

Ne-kick did not shout an answer, having been warned by the old man to keep his voice soothingly low all the time he was astride the horse. But he felt like yelling his exultation, sensing the submission of the tired stallion.

"Soon, my big one! Soon you'll leave your wild pastures forever and graze close to our cabin. Soon we'll be friends."

A final plunge, a feeble effort compared with the savagry of earlier bucks. When it was over, the animal pointed its muzzle toward the deep water and the grassy shore on the far side. Ne-kick let it swim, not trying to turn it one way or another. A long

swim would complete the taming, so he let the animal head straight across the chilly waters.

"Bring him back," yelled E-moshoom. "Steer him back here, where I can help you when he comes ashore."

Ne-kick, in sudden decision, shouted an answer:

"I cannot turn him-he is too strong for me!"

This was a lie, as he had slackened the rope to let the horse go where it wished. The stallion swam slowly, the long struggle having sapped its energy.

"Turn back!" shrilled the grandfather.

Ne-kick yelled that it was impossible, all the while letting the lariat drag loosely in the water. Finally the stallion's hooves touched bottom next the grassy shore. At that instant the boy jumped off and took the rope with him. He watched while the horse staggered up the bank and across the grass, moving with greater eagerness as it reached the pines.

THE boy went ashore and sat on a log, glad of the sun's warmth on his shivering skin. E-mo-shoom came quickly around the lake leading Nekick's pony and bringing the blanket and the boy's clothing. He did not speak, and the youngster avoided his grandfather's eyes as he hurriedly dressed and wrapped the blanket around himself. The old man examined the lariat, especially the strands next the hondo which had been sliced through by Ne-kick's knife. Nodding to himself, the grandfather came back to the log and sat down

beside the youth, puffing his pipe alight under a match and watching Ne-kick with dark eyes.

The boy blurted: "Forgive me for lying, E-mo-shoom, and for wasting all the good training. He was almost tame; he was nearly ready to be my horse. But—I could not have a tame horse, and still spy on a wild stallion. All summer we have seen many good things. The way he gallops with his head up; the way he circles the band as though to count them; and we've watched him fight off cougars and wolves. If he was tame, we'd no longer see those sights. Please don't be angry, grandfather."

After a moment a wrinkled hand pressed the boy's shoulder.

"My eyes have watched the eagle off in the far sky, and I have looked on the bull elk in his strength and seen a grizzly scratch his highest on a pine tree. We are Indians, linked with the old times when all the Manitou's children were free. Only a few good things are left for us to enjoy, and thanks to you, this wild stallion can be one of them. Come! Let us climb the hill and watch him go back to the band."

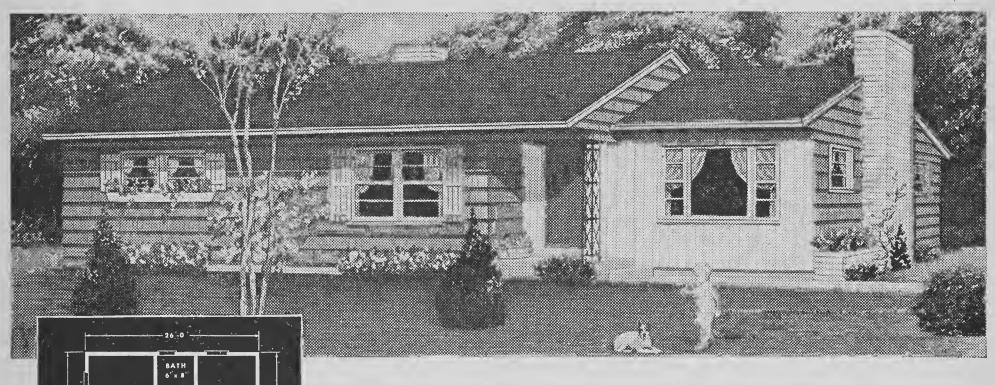
"Then you are not angry?"

"No, Ne-kick."

"Ahhhh, then—I like you very much, grandfather."

"Hai! We should not speak like women, boy."

But this time the wrinkled leather of the old man's countenance was not stolidly expressionless. His eyes were full of love as he looked at his fine grandson.



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The Countrywoman

by AMY J. ROE

Surely the brave spirit of Adelaide Hoodless, founder of the first Women's Institute, at Stoney Creek in 1897, hovered attentively over those assembled for this year's 40th Annual Convention of the Manitoba W.I.! Her name is known throughout the world, her story frequently told brings inspiration to millions of women connected with rural work and life through the Associated Country Women of the World. She it was, who grasped and acted upon the idea that the lives of women, children and men might be saved and their health bettered by homemakers sharing and putting into effect the scientific knowledge then available to farmers, on animal and plant nutrition, soil conditions, and labor-saving devices.

There was a special significance in the 1956 W.I. meeting in the campus buildings of the university. Preparations were well along for the celebration of the Golden Jubilee of Manitoba Agricultural College, now fully integrated into the university. On this site during the following week, on June 21 and 22, came over 1,000 guests, graduate and diploma ex-students, their wives and the faculty of agriculture's co-students, the home economic of graduate and diploma classes.

This may be properly termed the "presidential year." With Mrs. W. R. Forrester of Emerson, president of Manitoba W.I., presiding over the sessions, delegates were enabled to review the aims and projects of their work on provincial, national and international levels.

Mrs. A. M. Berry, of Queensland, Australia, has behind her 27 years of executive experience in rural women's organization work in Australia. At the 1953 Toronto triennial meeting she was elected president of the Associated Country Women of the World. She has visited 27 of the 30 countries which have over six million women in organizations affiliated with A.C.W.W. Her presence and the talks she gave were of special and lasting interest. She is presently crossing Canada, speaking at W.I. gatherings and later will meet with other officers in England next November, preparatory to the eighth Triennial Conference to be held mid-December in Ceylon. It is expected that from 20 to 25 delegates from Canada will attend.

Mrs. J. W. Adams of Ethelton, Saskatchewan, president of the Federated Women's Institutes of Canada, accompanied Mrs. Berry and will proceed with her to other provincial meetings. Mrs. Adams had some timely and important statements to make regarding organization framework and activities on the three levels. She reminded the delegates that: "Without a federation, we would be without contacts across Canada and could not speak with a united voice or have common policy. In many of the provinces the provincial units are closely connected with a university or department of government . . . We are not all alike but we are headed in the same general direction-for the good of home and country. It is important there be a central policy-making body and to map out fields of endeavor and give direction and assistance."

Mrs. Adams outlined the functioning of the F.W.I.C. Board with representatives elected by provincial organizations, and some "appointed' members to continue the line of experience to provide greater continuity in the work. She paid special tribute to assistance given by departments of agriculture and universities in W.I. work, which is sometimes apt to be taken for granted. "Women have asked and received help from departments of government. Many organizations of men get assistance and receive grants from provincial and federal governments such as: seed growers, agriculture societies and livestock groups. The importance of the rural home is sometimes forgotten. When we do ask and receive help, don't think that we are getting something to which we are not entitled.



Presidents three: Mrs. A. M. Berry, ACWW; Mrs. W. R. Forrester, MWI, and Mrs. J. W. Adams, FWIC.

We must continue to feel that we are important in the economy and welfare of Canadian people."

On October 28 and 29, 1957, the F.W.I.C. plans to hold its first national convention in Ottawa.

The second important project is the establishment of a foundation fund which will enable F.W.I.C. to set up a national office and employ some full-time staff. The work has become too heavy for the president and secretary who have their own home ties and duties. There must be a central office to maintain and store records, as well as to hold open the lines of communication so that a W.I. member knows she can get information and guidance on provincial, national and international topics. Mrs. Adams had some pointed things to say about standing committees, fields of special study and fees paid to national.

At the 1953 A.C.W.W. meeting, when Mrs. Berry was elected president, she was asked: "What are your plans?" Her answer, then, was: "I have no set plans for the future. We first must learn to crawl—and then perhaps to walk." At that conference's close she said: "We must reaffirm our faith in understanding one another. We live in a world that has become *one* as never before. Distances have shrunk and we are now directly concerned in countries that formerly seemed so remote."

She is a charming, witty speaker, realizing full well how the Australian accent and turns of speech delight audiences. She is a vital person appearing to stand up well under the strain of travel and constant meeting with strangers, many press, radio and television interviews; a practical-minded person, carrying on since her husband's death the management of a 42,000-acre "station" or ranch, on which 7,000 sheep are raised and sheared.

Mrs. Berry makes her home in Brisbane, in order to be near her two married daughters and six grandchildren. She makes the 500-mile hop to her grazeland station by airplane, used as casually in Australia as we use cars here. In that isolated farm home, she herself taught her daughters, aided by correspondence courses issued by the department of education. She takes pleasure and pride in describing her country to those who show interest, giving much practical detail regarding Australia's population, its main geographical and climatic features, the varied types of farms and farming. She laments the present drift of population to towns and cities. The Country Women's Association

in Australia has over 100,000 members in groups organized in six states.

"Understanding" and "friendship" are the keynotes in Mrs. Berry's talks. She referred again to how the size of the world in these modern days seems "to shrink year by year. The way to keep pace with it is not for us to shrink with it but rather to enlarge our minds and seek to understand what is happening . . . How wide our doors are opening! You in Canada and we in Australia have many opportunities to do things for newcomers in our country-to help integrate into our midst people from other lands and of other races . . . To be a good internationalist, one first has to be a good national. As we become friends we try to share our joys but we must at all times realize that we each may view things in different ways-our particular window gives upon a different view. We must endeavor not to look upon other countries and other peoples with a jaundiced eye but to try always to see into the souls and minds of men."

Depicting conditions as she saw them in countries visited, Mrs. Berry spoke of Malaya and Kenya, torn by cruel inner strife between native races; of refugee and prison camps, with their tens of thousands of people literally "thrown on the human scrap heap" as a result of war; of Nigeria, its people living at subsistance level, lacking the know-how, means and the number of educated people to raise to a better level; of Finland, in a stern harsh setting, but with its people of great heart and courage bravely mending its war wounds, and of its hardworking farm women who have long taken interest in their associations, in developing their culture and taking time to train and prepare their children for a better world. She spoke too of other sunny happier lands and people: Hawaii and the Gold Coast, whose women have recently affiliated with A.C.W.W. Of these she said:

"If you could as I have, visit women of many lands in their own homes, you too would feel that all women are your friends; that country women as mothers and homemakers have strong common bonds. How close we really are, through our associations and through United Nations and the work of its special agencies!

"I want to live in the world of my day and I want the world to live in my home. I want understanding, friendship and peace among its peoples to come within the lifetime of my children."



Atma Lorenzen paints their trade-mark, a distinctive touch to a plate.

HEN I first met Alma and Ernst Lorenzen they were living in three cramped and dreary rooms behind a garage on the outskirts of Moncton, New Brunswick.

At the rear, the largest room served as a combined kitchen-studio, and spilled over with clay in buckets; clay mounds on plaster of paris bats; sieved clay; clay taking form on Ernst's potter's wheel, and clay objects fresh from the kiln. Two small children splashed paint in a coloring book, while their mother, with steadier hand, sketched a pine spray on a small bowl.

Now, six years later, the Lorenzens live and work in their own fine brick house in Lantz, Nova Scotia, a prosperous community some 20 miles from Halifax. There, they have established a national reputation for finely turned and modelled pieces of ceramic pottery.

The story of that transformation to comparative affluence and well earned recognition is one which still amazes the Lorenzen team.

Ernst, Danish by birth, and a forester by training, spent ten years as a surveyor in maritime forests. During this period he met and married a gentle, brown-eyed, convent trained Acadian girl from New Brunswick. When their first child arrived in an isolated woodland cabin, Ernst decided it was no sort of place to rear a family. So the couple headed back to more settled parts and Ernst obtained work as an express clerk at the Moncton airport. In her spare time, Alma, who liked to dabble in things artistic, sought a satisfactory outlet for her creative talent. She came up with. the inea of making ceramic pottery and waxed so enthusiastic that Ernst too resolved to try his hand.

The result was a home-made wheel which promptly threw clay all about their kitchen. An electric motor and small pulleys soon corrected this mistake. Soon small pitchers began to take proper form. Further experimentation together with serious study of form, design and glaze, presently convinced the Lorenzens their hobby could be built into a profitable business.

With very little capital, Alma and Ernst contrived to produce enough native pottery to attract local attention. Then orders began to trickle in, some from as far distant as Calgary and Banff. Soon they needed more workspace, more money to buy supplies, and they didn't know which way to turn.

a Ceramics Team

Venture into pottery making using native clays and glazes, plus a Cinderella-like twist to their project—brings success and renown to Alma and Ernst Lorenzen, Lantz, Nova Scotia

by VERA L. DAYE

Then, one day, a peppery old man arrived unannounced at their front door, said he'd read about them in some newspaper, and wanted to see their work. When he had completed an eagle-eyed inspection, he turned to the Lorenzens and acked if they'd like a pottery of their own. Hastily assuring the stranger they hoped to have a proper place some day, they were completely flabbergasted when he told Ernst to visit him immediately in Halifax.

He told them his name was L. E. Shaw. At that time, Ernst had never heard of L. E. Shaw. However, he went to Halifax and was confounded to discover the man to be a substantial industrialist, owner of L. E. Shaw, Ltd., the largest brick and tile company in the maritime provinces.

"Draw me a plan of the kind of place you want," Mr. Shaw directed tersely. Ernst gasped, but managed to outline a combined house, pottery and showroom.

"All right, we'll have it for you by fall," snapped Mr. Shaw, but with a benevolent twinkle in his eye.

Several months passed with no further word from the man. The Lorenzens began to think they had dreamed the whole thing. Then Shaw telephoned them to go at once to Lantz and inspect their new premises.

The Lorenzens found a handsome brick house about 28 x 30 feet, with attractive living quarters on the ground floor and bedrooms above. To the right of the living room was space for a shop with a large recessed glass window facing the road. This was to be their retail outlet. Beyond, running the full length of the building was the pottery, with room for half a

dozen kilns if need be, well lighted with plenty of workspace and shelving. The pleasant structure fronted on the main road to Halifax where tourists by the hundreds, passed each summer.

In Lantz itself, the heart of Shaw's brick-making business, there was clay for the taking. There was a thoroughly modern community, with brick buildings, school, stores and churches. Beyond lay the forest, where Alma and Ernst could study at first hand, the flora and fauna they planned to recreate in stoneware.

The whole set-up was a Cinderellalike dream come true. Shaw gave them an itemized list of the actual cost of all materials and labor. The modern sixroom house and bath was theirs, nothing down, and they could pay for it on their own terms-with no strings whatever attached. The Lorenzens could scarcely believe their good fortune. Especially when they discovered Mr. Shaw was not particularly interested in hand-turned pottery. He had evidently considered that such an industry would be pleasant to have in Lantz where the clay was so eminently suitable.

HARD work has now gained international renown for the Lorenzen team. Trade grows, and in a few years the establishment will be their own.

In the beginning, this team of potters bought the many glazes used in their work. Today, they prefer to develop their own, among them, a Titanium old ivory Malt Glaze which won them an honorable mention at the Montreal Ceramic Exhibition in 1952. They have since then, changed over completely to new types of glazes which they develop from the minerals



[Nova Scotia Bureau of Information photos

Collection of the Lorenzens' well designed, finely executed pottery products.





An effective modern display of their pottery ware in the shop at Lantz, N.S.

they constantly search for and find throughout Nova Scotia. Such "rocks" as malachite, barite, manganese, cobalt and garnet sand, when properly treated, produce beautiful shades of green, red, blue and purple.

Bright scarlet is a very unusual glaze the Lorenzens have perfected recently. This shade is used for the throat patch on a tiny ruby-throated hummingbird and for pendant and earring sets. Ox-blood red is another tone, a difficult color to obtain, they

As she found it difficult to center the clay on the wheel, Alma Lorenzen devoted her attention to sculpt and molded objects, such as plaques; figurines; salt and pepper sets and unusual earrings, pendants and buttons. Her delicate, winged pottery birds have become Lorenzen trademark pieces highly prized by collectors. True-life models come winter and summer to a feeding station not far from her home. Her husband designs and executes the bowls, jars, plates or goblets which require expert turning. The winter months are utilized for filling orders and creating enough pottery to help carry them through a busy summer season.

Recently, the Lorenzens originated a different type of flower holder using decorative Nova Scotia mushrooms in their dozens of curious colors, shapes and sizes. These are so exact, a complete collection was ordered by M. Rene Pomerleau of Laval University for use by the professors in their various lectures.

When television came to the Canadian east coast, the Lorenzens were presented on the nation-wide CBC-TV newsreel. Previously, George Blaha, a Chicago photographer, and his wife, had made a series of 300 colored slides depicting every phase of the Lorenzen pottery from clay and mineral to the finished product to be shown in his city at a \$100 per plate dinner for the Institute for the Blind. After that, the pictures travelled all over the United States. The Lorenzens are still reaping a harvest of tourist orders for their products from that good bit of advertising.

By 1954 Alma and Ernst saved up enough money to take their two daughters on a junket to Europe. They spent six wonderful weeks studying and talking with the most prominent ceramic artists in Belgium, Germany, France and Denmark. They visited Ernst's parents whom he had not seen for 24 years—another dream-come-true for the hard-working Canadian couple who not only believe in a fairy godfather, but know him in person—the brickmaker of Lantz.

The News in Nylons

The method of selecting stockings has much to do with the wear you may expect from them

W HAT is your hosiery IQ? If you buy a pair of stockings by sight rather than for a specific occasion, it's time to take stock of your hosiery intelligence rating. On the other hand, if you make your selection by gauge and denier you are a better shopper than most Canadian women.

Buying stockings by gauge and denier is most important. The denier number refers to the thickness of the yarn; gauge stands for the number of stitches in a 1½-inch width. The lower the denier number, the sheerer the hose. If you are mystified by the terms gauge and denier, you won't go far astray if you ask for "walking sheer," "dress sheer" or "evening sheer" stockings. The walking sheer refers to a comparatively heavy

weight hose of a 30 denier - 51 gauge construction. Dress sheer is usually 15 denier - 51 or 54 gauge, and evening sheer, 15 denier - 60 gauge.

Today's trend toward increasing sheerness has created problems for both manufacturer and consumer. Sheerness is achieved by using fibers in the stocking that are finer and finer, that is, thinner in cross section. And although as the denier decreases the gauge generally has been increased, the stockings have become more fragile. If you have thought that nylons do not wear as well as they used to, you are not mistaken. The reason for this seems mainly the fashionable woman's desire for sheerer hose.

The method of selecting stockings has a great deal to do with the (Please turn to page 40).



It's Lipton Soup so it's "All gone, Mummy!"

No need to coax them to eat when you give the children Lipton Chicken Noodle Soup. They love it! And no wonder—with those golden egg noodles, that rich chicken broth. Just what a fellow wants after a hard morning's play!

Lipton is so rich in flavor because you make it your-self—right on your own stove. It tastes home-made because it is home-made—and so quickly. Just empty the packet into rolling-boil water and in a few minutes you have rich nourishing soup that's good for the whole family.

And it's so handy for mother when it comes to shopping and storing. The neat foil packages are light to carry and space-saving to store.

Try it this week-and you'll buy it every week!

THE WHOLE FAMILY WILL LOVE ...

LIPTON CHICKEN NOODLE

PUT IT ON YOUR SHOPPING LIST NOW!



Also Beef Noodle, Tomato Vegetable and Onion.



Save time... Save work!

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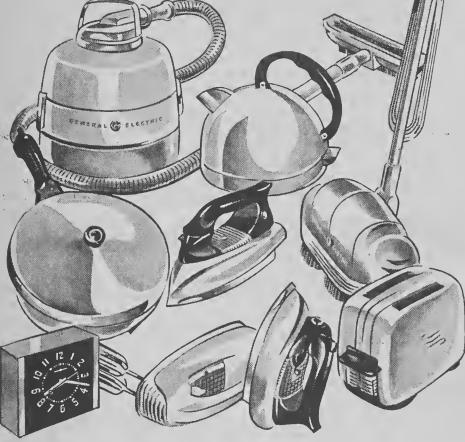
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Floor Polisher. You just guide — it does the work.

your taste every time. Featherweight Iron. Cuts

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Electric Clocks. Handsome, accurate — for every





CANADIAN GENERAL ELECTRIC COMPANY LIMITED

Ice Cream for Dessert

The whole family can join in the fun of making and eating these frosty desserts



Serve old-fashioned freezer ice cream for a special summer treat.

TCE cream is a favorite hot-weather dessert for people of all ages. Dressed up for company with fruits, nuts or syrup or served plain for a family treat, ice cream is a delicious and nutritious dessert.

The smooth, creamy texture of ice cream is developed by the stirring it receives in the freezer. It does not seem possible to get the same results without stirring, although desserts of a slightly different type may be made satisfactorily in the freezer compartment of the refrigerator.

To make freezer ice cream, pour the cooled ice cream mixture into the inner can, filling only two-thirds full to allow for expansion. Fit the can into the freezer, adjust the dasher and cover. The ice packed around the freezer must be chopped finely and the salt, either coarse or rock salt, in proportions of one part salt to six or eight parts of ice, arranged in alternate layers with the ice. The first salt is put in when the ice is about two inches from the bottom of the inner

Turn the dasher slowly until the ice melts and forms a brine. Then turn the handle rapidly and constantly until the crank turns hard. Remove the ice from the top of the can, pour off liquid, remove the dasher, plug the opening in the lid, then replace the lid. Add more salt and ice in the same proportions to fill the freezer and allow the ice cream to ripen ahout four hours.

Texture of refrigerator ice cream may be improved by breaking the frozen mixture into chunks, turning into a chilled bowl and beating it smooth with an electric or rotary

Vanilla Freezer Ice Cream

4 eggs 4 c. light cream 2½ c. sugar 2 T. vanilla ½ tsp. salt 6 c. milk

Beat eggs until light. Add sugar gradually, beating until mixture thickens. Add remaining ingredients; mix thoroughly. Fréeze in ice cream freezer. Makes 1

Lemon Velvet

1½ c. sugar ½ c. lemon juice, fresh, frozen or 3 c. milk canned

1 6-oz. can evaporated milk

Dissolve sugar in lemon juice. Gradually add evaporated milk, beating constantly. Add milk. Freeze in 2-qt. ice cream freezer. Remove dasher and pack. Makes 8 servings.

Lime Sherbet

1 pkg. lime flavored gelatin c. hot water ½ c. sugar

1 c. light cream 4 c. lemon juice 1 tsp. grated lemon peel

2 c. milk

Dissolve gelatin in hot water. Add remaining ingredients; mix thoroughly. Freeze firm in refrigerator tray. Break in chunks with wooden spoon; turn into chilled bowl; beat fluffy-smooth with beater. Return to cold tray. Freeze firm. Makes 6 to 8 servings.

Chocolate Ice Cream

1 rennet tablet 1 T. cold water 1 square un-2 c. light cream sweetened ½ c. sugar 1¼ tsp. vanilla chocolate

Dissolve rennet tablet by crushing in cold water. Melt chocolate in ½ c. light cream over hot water. Make smooth paste of remaining light cream and sugar; add to melted chocolate; add vanilla. Heat slowly until comfortably warm (110° F.), not hot. Add dissolved rennet tablet; stir quickly for few seconds only. Pour into refrigerator trav. Let stand at room temperature until set, about 10 minutes. Freeze firm. Remove from tray to chilled bowl; break with fork; beat with beater until smooth. Return to cold tray. Freeze firm. Makes 4 to 6 servings.

Cherry Bisque

2 egg whites 2 T. sugar 1/3 c. grapenuts 1/4 c. coarsely chopped cherries, cut

½ tsp. vanilla 1 c. heavy cream, whipped 1/4 c. sifted icing

in fourths 1 T. maraschino cherry syrup

sugar 1/4 c. coarsely chopped almonds (toasted)

Beat egg whites until foamy; add sugar gradually and beat till stiff. Fold in remaining ingredients. Sprinkle more grapenuts in bottom of cup cake liners placed in muffin pans. Pour in cherry mixture. Sprinkle grapenuts on top. Freeze firm.

Summer Salads

These colorful salads provide refreshing and nutritious meals for warm, summer days

by PHYLLIS A. THOMSON

7HAT is more delightful at this time of year than a cool, fresh salad? Now that an abundance of garden greens is available, the possible variety of salads is endless.

When making salads it's important to remember that the most attractive salads are the most simple. Always have the greens fresh and crisp (give all the ingredients a thorough chilling before serving) and break the salad. stuff into fairly large pieces of uniform size. For a pleasant change from the usual head and leaf lettuce try water cress, endive, romaine or tender leaves of spinach. Garnish salads prettily using tomato wedges, onion rings, green pepper, radishes, grated cheese, egg slices, olives, pimento or

The salad bowl is one of the most versatile salad services. It's convenient for buffet suppers, easy for the family dinner table and makes a charming addition to a company meal. The salad bowl consists of various salad greens garnished with cut vegetables, meat or cheese. The dressing is usually a piquant French poured over the salad, then tossed lightly.

The salad plate makes a delightful supper or luncheon service. It may consist of one or two salads, a fruit or vegetable garnish, relishes, devilled eggs or small wedges of luncheon meat. A complete meal is provided by an assorted salad platter with several well-chosen salad combinations, arranged separately in lettuce cups on a bed of chopped lettuce. Depending on the platter size, it may be arranged for four to eight persons.

Jellied Spring Salad

1 T. unflavored gelatin 1/4 c. cold water 1½ c. hot water T. lemon juice

1 tsp. salt

1 c. diced cucumber 1 c. chopped celery

1/2 c. sliced green T. vinegar onions 1/2 c. sliced radishes

Soften gelatin in cold water; dissolve in hot water. Add lemon juice, vinegar and salt. Chill till partially set; add remaining

ingredients. Pour into individual molds. Chill till firm. Serve on crisp lettuce with mayonnaise. Six servings.

Tomato Aspic

4 c. tomato juice 6 T. chopped onion 1/4 c. chopped

2 T. unflavored gelatin 1/4 c. cold water

4 whole cloves

celery leaves 2 T. brown sugar 1 tsp. salt

3 T. lemon juice 1 c. finely cut celery

2 small bay leaves

Combine tomato juice, onion, celery leaves, sugar, salt, bay leaves, cloves. Simmer 5 minutes. Strain. Soften gelatin in cold water; add to hot tomato mixture. Add lemon juice. Chill till partially set. Add celery. Chill in 1½-quart or 8-inch ring mold till firm. Unmold; fill center with 2 c. shredded cabbage seasoned with salt, pepper, sugar, lemon juice and mayonnaise. Makes 8 to 10 servings.

Cheese and Pineapple Salad

T. unflavored gelatin 1/4 c. cold water 3/4 c. sugar

1 c. crushed pineapple, drained 1 c. grated cheddar cheese

½ c. pineapple 1 c. heavy cream, syrup whipped

Soften gelatin in cold water. Dissolve sugar in pineapple syrup over low heat; add gelatin, stir till dissolved. Chill till partially set; add pineapple and cheese; fold in whipped cream. Turn into 1-quart mold. Chill until firm. Makes 6 to 8 servings.

Chef's Salad Bowl

1 bunch radishes, 1 clove garlic head lettuce sliced 1/2 green pepper tomatoes, cut in wedges 1/4 c. French cucumber, dressing sliced

Rub salad bowl with 1 cut clove garlic. Add lettuce broken in pieces. Arrange vegetables over lettuce. Season with salt and black pepper. Add French dressing. Toss lightly. Six servings.

Chicken Salad

3 c. cubed, cooked chicken 11/2 c. diced celery

1 tsp; salt 3 sweet pickles, chopped Mayonnaise

3 hard-cooked

Combine chicken, celery, salt, eggs cut in quarters and pickles. Moisten with mayonnaise; serve on lettuce and garnish



An attractive salad plate makes a cool, satisfying luncheon or supper.



NEEDS NO REFRIGERATION

ALMOND TWISTS

Meosure into bowl

1 cup lukewarm water

2 teaspoons granulated sugar

Sprinkle with contents of

2 envelopes Fleischmann's Active **Dry Yeast**

Let stond 10 minutes, THEN stir well.

1/3 cup butter or margarine

1/2 cup granulated sugar 11/2 teaspoons salt

Blend in, part at a time

2 well-beaten eggs

Add the yeast mixture and

1 teaspoon vanilla

2 cups once-sifted all-purpose flour and beat until smooth and elastic.

Work in an odditional

21/4 cups (about) once-sifted all-purpose flour

Turn out on lightly-floured board; knead until smooth and elostic; place in greased bowl. Brush

top of dough with melted shortening. Cover. Let rise in warm place, free from draft, until doubled in bulk-about 1 hour.

Meantime prepare and combine

3/4 cup finely-crushed cracker crumbs

1/2 cup blanched almonds, finelyground

3/4 cup granulated sugar

1 slightly-beaten egg

2 tablespoons water

11/2 teaspoons almond extract

Punch down dough. Turn out and halve the dough; set one portion aside to shape later. Roll one portion Into a 12-inch square. Spread 3/3 of square with half the crumb mixture. Fold plain third of dough over crumb mixture, then fold remaining third over top - making 3 layers of dough and 2 of filling. Cut rectangle into 18 strips. Twist each strip twice; place on greased cookie sheet, Press 2 or 3 blanched almonds into filling of each twist. Brush with melted butter or margarine; sprinkle with sugar. Shape second portion of dough in same manner. Cover. Lat rise until doubled In bulk-about 1 hour. Bake in moderate oven, 350°, 20 to 25 mins. Yield: 36 twists.



Harvest time in Alberta, is the period of pleasant weather, warm days and cool nights. Forests ablaze with Autumn colors and Alberta's invigorating crisp clean air are ideal for photography — sport facilities — golfing — riding — hiking — fishing, add to a holiday you'll always remember. You'll find excellent accommodation at popular rates for all the family.



For free booklet and map send this ad with your name and address to Alberta Travel Bureau, Legislative Bldg., Edmonton, Canada.

Know Alberta Canada Better

When Skin Itch Drives You MAD

Here is a clean stainless penetrating antiseptic—known all over Canada as MOONE'S EMERALD OIL—that dries right in and brings swift sure relief from the almost unbearable itching and distress.

Its action is so powerfully penetrating that the itching is promptly eased, and with continued use your troubles may soon be over.

Use EMERALD OIL night and morning as directions advise for one full week. It is safe to use and failure is rare indeed.

MOONE'S EMERALD OIL can be obtained in the original bottle at any modern drug store.

with additional egg slices and olives. Makes 8 servings.

Mayonnaise

1 tsp. salt
2 T. vinegar
2 tsp. dry mustard
2 c. salad oil
2 tsp. paprika
2 T. lemon juice
2 r. lemon juice
1 T. hot water
2 egg yolks

Mix dry ingredients; add egg yolks and blend. Add vinegar and mix well. Add salad oil, I tsp. at a time, beating with rotary beater till ¼ c. has been added. Add remaining oil in increasing amounts, alternating last ½ c. with lemon juice. Beat in hot water; this takes away oily appearance. Makes 2 cups.

French Dressing

1 tsp. sugar ½ c. salad oil ½ tsp. salt 2 T. lemon juice ½ tsp. dry mustard 2 T. vinegar ½ tsp. paprika Dash cayenne

Put ingredients in jar; cover and shake well before using. Makes ¾ cup.

That Short Holiday

When the opportunity comes, welcome it and make plans for yourself and family, brushing aside hindering thoughts

by VERA M. MEAD

AS a whisper of a short holiday—a "break" away from home, come your way? Maybe it's a chance to spend a few days with mother or sister or perhaps a convention to which your husband is going, which would give you a chance to do some shopping in the city, or a provincial gathering of some club or organization to which you belong. How nice it would be to view it through your own eyes for a change instead of through someone else's and getting the story second-hand.

Your first thought is that you just simply can't get away, followed perhaps by feeling a bit sorry for yourself. If this is true, then you are the very person I'm wanting to talk to. If you really want to go, then make up your mind that you can go and you likely will. I am not talking about an extended trip to Hawaii, a two-weeks' trip to the Coast, nor even about being a whole week away from home. You will get a "lift" out of two or three days away from the house, a break in the daily routine. In a new setting, seeing new faces and forming new associations and having "different" things to think about afterwards, you'll get, especially if you are young and rather tired, something that you will enjoy and benefit from. Three or four days now may be on a par with that trip to Hawaii, when you are old enough to afford the time and money for an extended holiday-when the family are off on their own.

Stop thinking negatively! It's natural to immediately start listing in your mind and perhaps aloud too, all the reasons why you cannot go. Who'll wash the separator? What about the baby chicks? What about the baby, bless his little heart, what could I possibly do about him? Oh no, not this year, maybe next! These and other thoughts flit through your mind.

I have a very dear friend, who gets all pepped up every time there's a possibility for a little trip away from home for her. Then she wilts, like a fading flower. She seems to say to herself in effect: "But something will happen. You'll see! Something always does, when I want to go somewhere.' Then she settles down and for days plans for or thinks up something likely to happen. Not consciously, perhaps! But that is exactly what she does to herself and others. Never has she gone, and never that I know of has she given a good sensible reason for not going. She hasn't a child to worry about, but each time she manages to raise an insurmountable barrier between herself and that proposed trip. And she stays home year after year.

Another friend of mine seems always ready, needing just enough time to do her hair and pack her clothes. She's always bubbling over with enthusiasm, laughter and new ideas, gleaned from here and there and everywhere. Her neighbors are fond of her, her family adores her. They respect her desire to develop her interests outside the four walls of her house. That house may be a bit cluttered at times but my friend is as good as a tonic, for those about her.

Now, getting back to you and that proposed trip! Some fine morning try this announcement at the breakfast table: "I've made up my mind to go to the convention this year. I'll get things in order around here so that you can get along by yourselves for a few days and then I'm taking off." The family will perhaps all fall under the table but they will gradually recover from the shock and creep out one by one to see if you have disappeared or meant what they heard you say. Don't weaken! Try to look nonchalant and go right on planning aloud. If they discover that you are "wobbling" you are lost.

Mention of the separator will probably bring howls of protest around your head. Instruct some member of the family how to give it a triple rinsing every morning until you get back. I tell mine to use cold water, then warm water and add one teaspoon of baking soda to each quart of cold water, leaving this last rinse in the bowl; take the rest of the separator apart and put the pieces all in the milk tank. Cover with a clean cloth and set it in the basement where it is cool. When next they separate milk, they drain the soda water off and repeat the whole process.

One of the children can be taught to feed and water the baby chicks and have some days' practice at the job before you go. In most families there's usually a "chicken man," and he will take pride in doing the job all by himself. He can see to it that plenty of feed and water is provided before he goes to school and the chicks will be all right until he returns in the late afternoon. If you have a brooder that is oil or electric with automatic adjustment, he must understand its management and behavior. But don't trv to give too many detailed directions or they will likely forget the important ones and remember only the unimportant points.

Now in regard to little Johnny! Haven't you got a good friend or

neighbor to whom you could explain that you want to go on that trip or to a convention. Ask her if she would take little Johnny and care for him the days you will be away. You can offer to return the favor or some equal courtesy in the future. Women are good in helping each other out in such ways and you will get your chance to repay her later. You'll go on that trip with a song in your heart.

If your other children are too young to leave alone overnight (if you are like me, they have to be nearly grown up to be so considered), you can make arrangements. Some older neighbor boy or girl might be persuaded to come to your place in the evening and stay overnight. If the fires and oil in the brooder stove need checking you will want to have a responsible person to keep a watchful eye on things. You will probably have an adult there anyway for attending to the chores.

Each woman's problem differs from another's. But there will be a solution if you are smart in thinking things out and talking it over with others. When the family has recovered from the first shock, they will contribute ideas and volunteer ways of helping out. The older ones especially feel a sense of pride in looking after things "while Mum and Dad are away." You will of course be warm in expressing your appreciation and praise to each individual when you return.

Just a word about food prepared in advance and left for the family meals! You know best your family's likes and dislikes—and the little treats that make them happy. If you have a good refrigerator or a freezer, that problem is fairly simple, you can even make sandwiches for school lunches and freeze them or pies already to slip in the oven. I am not attempting to give you recipes, rather just insisting that it can be handled if you make plans and let the children in on the plans.

Instead of one large cake, make two smaller ones or cup cakes. If you have adequate cold storage you can make a macaroni and cheese or tomato casserole, which can well take the place of meat and vegetables. Canned meat is handy at such times.

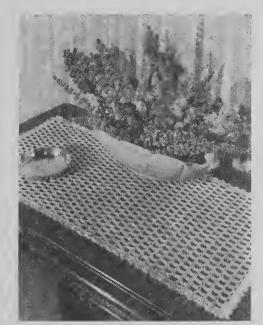
Perhaps at this point, you are saying: "It's easy for her to write about all these things. I'll bet she never had a family." Stop right there-you're thinking negatively again! The first thing you know you'll argue yourself out of taking that trip. Better, go get vour hat and look over your clothes. You do not need many. A suit and a couple of dainty blouses, a smart dress will be enough to see you through. They may not be new but then the folks you will meet haven't seen you in them. Either get or arrange for a new hair-do. There is nothing which will give you a "lift" like knowing that you look your best.

Have a good time on that visit or trip. Greet your little holiday with enthusiasm and above all don't worry about things back home. Endeavor to meet as many people as you can. Each one will have something for you—a new outlook, a different experience, new ideas. When you get back home, you will have much to tell your family. And the things they have to tell you will make you realize that your small people are surprisingly dependable, resourceful and just plain wonderful. V

Summer Crochet

In leisure moments make these versatile items for home and personal use

by ANNA LOREE

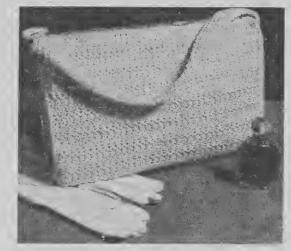


Design No. C-N-108

Here is a charming crocheted runner for a table or sideboard. The delicate, lacy design of "Fairy Shingles" makes the runner appropriate even for a dressing table. The runner will help to protect table surfaces from scratches and other blemishes. Make several in different colors to harmonize with furnishings in the various rooms of your home. With a simple pattern and easy-to-follow instructions the runner is quickly worked. To give a finished look, starch lightly, then press with a warm iron. Runner measures 13½ x 29 inches. The materials required include 8 balls pearl cotton size 5 and steel crochet hook No. 7. Design No. C-N-108. Price 10 cents.

Design No. C-PC-8041

A useful carry-all bag you will enjoy. Smart envelope style with zipper closure for neat finishing. Use as an evening bag during the winter months. Bag is lined with felt and buckram to give smooth, firm appearance. Materials: 3 balls sparkle blue crochet cotton, steel crochet hook No. 2, 9-inch zipper, ½ yard each of felt and buckram. Design No. C-PC-8041. Price 10 cents.



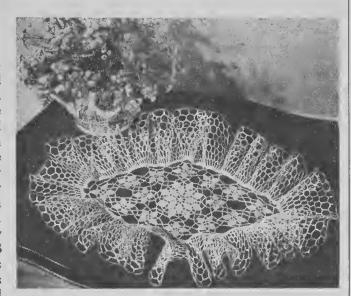


Design No. C-G-101

For summer fun, beach bag and slippers set is ideal. Bright colors lend a gay, peasant air. Later bag can be used to carry knitting, needlework, or baby needs; soft-soled slippers suitable for year 'round house slippers. Materials: 9 balls red, 5 balls each of turquoise, yellow, pink and green cronita cotton, plastic crochet hook No. 8, 16 metal rings 1 inch in diameter, pair soles, 1 yard elastic. Design No. C-G-101. Price 10 cents.

Design No. CT-229

This dainty doily features central diamond motif edged with a deep, filmy ruffle. Made in single, double and treble crochet and chain stitch. Instructions are easy to follow, the doily quickly made. Doily adds a feminine touch to a coffee or end table. The finished doily measures 12 x 18 inches. The materials required include 3 balls white or ecru 6-cord



mercer-crochet size 30 and a steel crochet hook No. 10. Design No. CT-229. Price 10 cents.

Address orders to The Country Guide Needlework Department, 290 Vaughan Street, Winnipeg 2, Manitoba.



Have you heard . . .



New chemical softens water softer than rainwater! Your soap will wash more! Reduces "scale" in the kettle and rings in the bath! Use in kitchen, laundry or bath. No harmful ingredients. Send 10c for sample. Retail pack, postpaid 50

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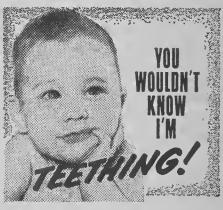
DO YOU KNOW

the safe, convenient, easy way to ensure intimate feminine hygiene?

Zonitors-dainty, greaseless vaginal suppositories are powerfully effective yet absolutely safe. They completely deodorize, guard against infection and kill every germ they touch in hours of continuous action. Inexpensive too . . buy a package today!







Very often at teething time baby suffers from the added discomfort of constipation. This condition tends to cause restlessness and irritation. During this period try Steedman's Powders, the standby of mothers for more than 100 years, they act safely and effectively as a gentle laxative. At your druggist's.

Mothers" is full of information and tells you what to do till the doctor comes and how to treat simple ail comes. Write for free copy to the distributors: Laurentian Agencies Ltd., Dept. J-3, 429 St. Jean Baptiste St., Montreal.



Look for the double EE symbol on the package.

Helpful Suggestions

for solving many farm problems are found in every issue of The Country Guide.



"If I'm smart enough to use Mrs. Stewart's Bluing to keep clothes whiter than with anything else AND save money—l'msmart enough to spend the savings—so there!"



We don't go all the way with this-but she's got a point! A bottle of Mrs. Stewart's liquid Bluing lasts for months and gets clothes snowy white the easy way without fuss or muss. Start next washday.



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Wash Woollens Without Shrinking!

Yes! You can wosh all your woollens without the leost shrinking or matting; thanks to ZERO the omozing cold water Soap. Softest coshmeres and baby things are perfectly sofe with ZERO. Try a box 59c package good for dozens of woshings. At your local drug, grocery and waol stores. For Free sample, write Dept. 3D, ZERO Soap, Victorio, B.C.



Always make sure your mail is properly addressed, and that you have signed your name and address to your letter or subscription order. An omission will cause delay in filling your order.

Talent Trading by BETTY CAMPBELL

"Oh, how I wish I could do that!"

N any group of women, whether it's a church organization, a women's institute, or a legion or hospital auxiliary, there are those women and girls who would like to learn some new skill. There are also women who have special talents and skills in crafts or homemaking. But it's not always easy to get the two together.

You can plan and organize so that the experts in a particular field may share their skills. Everybody will have the opportunity to learn something new and those who teach will enjoy the experience as well as those who

The next time your society or group meets, pass out a simple questionnaire. First, of course, will be a space for the name, and the telephone number of each member. Then comes the list of "do's," things which she can do in the line of special homemaking skills. These will include such specialized baking as making bread and doughnuts. It is surprising the number of people who haven't mastered that trick, and are anxious to find out where their trouble is. After these comes the handiwork section with knitting, crocheting, sewing, smocking, tatting, and embroidery work. It's a good idea to include the growing of houseplants, canning, making pickles and jellies in this list too, just in case.

The second secton lists the same skills, but is headed "I would like to learn to . . ." Each member simply checks the things she can do, and the things she would like to learn or do.

Once you have that information, it's a relatively simple matter to choose someone who is especially proficient at each craft and have her help a class to learn a new skill. If a large enough number expresses a desire to learn knitting or smocking, an evening together can be arranged. If only one girl is interested in tatting, she and the best tatter in the group will have cosy hours together over their

There is only one stipulation. One piece of work must be turned in by each person to the group for the annual sale or bazaar. This means a sizable contribution, and the members have extra fun getting ready for the sale.

The News in Nylons

Continued from page 35

amount of wear you can expect to receive from them. It is wisest to buy stockings for a particular occasion or use. For example, a walking sheer, 30 denier - 51 gauge stocking is ideal for general wear, household use and trips to the grocery store-in fact anywhere where they might be expected to receive hard usage. On the other hand for more dressy occasions and evening wear, a 15 denier stocking in a 51, 54 or 60 gauge is more

Another money saver is to buy several pairs of stockings at one time. By purchasing two or better, three pairs of stockings in the same color at one time, vou can match odd stockings to form perfect pairs if one nylon from each pair "runs" or

develops a snag. Following this practice your stockings should wear at least one-third longer.

Complicating the trend to sheerness is the newest development in hosiery-stretchable hose that will fit a range of sizes, cling to the leg and give without binding under the strain of severe knee bending. Although nylon filament has none of the natural crimp that, for example, wool yarn has, stretch can be built into nylon simply: the filament is twisted by various means and heated to about 275° F. When the filament is allowed to cool, it will have taken a permanent set in the direction of the twist, becoming a sort of nylon coil spring.

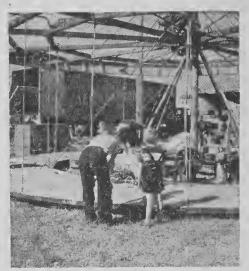
Though "stretch" yarns seem headed for success it is by no means clear which stretch yarns will come out ahead. A great number of processes are already in competition. Among the different kinds available in Canada are "Agilon," "Shaped-2-U" and "Ban-Lon." These are trade names for different yarn treatments. As the production of stretch nylons is quite small at the present time, the price is still slightly more than for conventional hose. A point to remember is that stretch nylons should be rolled rather than pulled on, to avoid exerting any sudden strain on the

Hosiery provides women with a wider selection this year than most fashion accessories. The new dollsize stocking which stretches to give a personalized fit has even more tricks to offer. It is now available with reversible light and dark seams or no seams at all. Stretchy yarns are providing à two-way expandable hosiery welt interlaced with pastel bands to match the wearer's lingerie and this summer will be available in gartereliminating knee-highs.

Also new this season is a standard stocking with a self-adjusting device just below the top which enables any single size to fit three or four different leg lengths. It also lessens the strain over the knee and provides greater comfort when bending or stooping.

For those interested in texture, there is a design with a ribbed effect in the leg and a lace-patterned welt.

The demand for seamless hosiery is still as strong as ever, giving those who prefer the bare-legged look and are interested in what they buy, a different term to learn. In this instance the word "needle" is much easier to understand than gauge and denier since it is simply the number of stitches in the circumference of the leg. Thus there is a 340-, 400- and 474-needle seamless hosiery. Providing the thickness of the yarn remains the same, a 474-needle stocking is more snag-resistant than the other two constructions since the stitches are less open.-P.A.T.



The Merry-Go-Round

Hurrah! Tomorrow! The circus will come.

The band in front with the big bass drum;

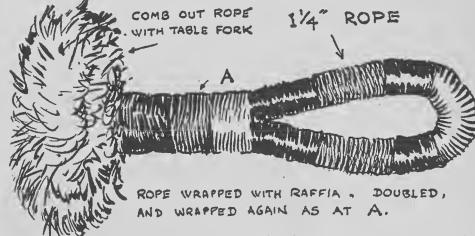
Lions and tigers, and zebras and bears, And fat little ponies that gallop in

Tomorrow we'll ride on the merry-goround,

And gaily wave to the painted clowns. Then from the horses we'll slide to the ground

Feeling so queer as we stagger around. -Effie Butler.

a Gift to Make



HANDY colored brush for the hearth or an efficient brush for dusting corners! You will be proud to be the donor of this unusual gift or to contribute it to your Christmas bazaar. The brush is made from one and one-quarter inch rope—you need two feet for each brush you intend to make, also you need a package of assorted colored raffia.

Find the center of your piece of rope, then wind raffia neatly and firmly for a width of one inch on each

side of the center. Continue winding with other raffia colors in one-inch bands in a pleasing color arrangement to cover a total of 12 inches of rope. Now fold rope in half and begin winding raffia about three inches from the top to hold together the two halves and form a handle four inches long. This will leave about five inches of rope to untwist and comb out with a heavy fork or coarse comb to make the brush. Shellac the raffia part of the brush to make it attractive and durable.—A.T.



No. 1330—Start fall wardrobe with this jumper and blouse. Jumper features six-gore skirt, patch pockets and slim bodice. Blouse has long sleeves with button-front and "little boy" collar. Sizes 6, 7, 8, 10, 12, 14. Size 10 requires 2% yards for jumper, 1% yards 36-inch material for blouse. Price 35 cents.

No. 1496—Here is a dress for school or dress-up occasions. Smart long-torso style with soft unpressed pleats in skirt. Slim bodice features short set-in sleeves, small, pointed collar. Sizes 7, 8, 10, 12, 14. Size 10 requires 3½ yards 36-inch material. Price 35 cents.

dress. Made with empire waist, puffed sleeves and peter pan collar. Sizes 1, 2, 3, 4, 5, 6. Size 3 requires 2½ yards 36-inch material. Price 35 cents.

All patterns are printed with instructions in English, French and German. State size and number for each pattern.

Note price, to be included with order.

Write name and address clearly.

Order Simplicity Patterns from The Country Guide Pattern Service, Winnipeg 2, Man., or direct from your local dealer.

The Country Boy and Girl



Tariangleriang Triangleriang of the property o $oldsymbol{1}$ carefree and happy. You may go to a cottage at the lake with your family or pitch a tent in a grove of trees in the pasture or just build a shelter of boards and old blankets not far from the house to use for daytime camping. However you choose to camp you'll enjoy making some of your own camp equipment. Try this woodsman's lantern that will not blow out in a wind and is easy to pack when you break camp.

You will need a soft drink bottle (preferably of clear glass), a tin lid from a baking powder can large enough for the bottle to sit in, some soft wire and a candle. Fill the bottle with water then tie a woollen string around it about half an inch from the bottom of the bottle. Set the bottle on hot coals until the water begins to boil and the string burns off. Tap bottle sharply with a stick and the bottom will break off clean. Now punch four evenly spaced holes with a nail in the rim of the tin lid, then cut an X shape on the bottom of the lid and push the points inward to make an opening large enough to hold the candle. Set the bottle into the tin lid, to act as a lamp shade, then fasten to the lid two wires long enough to reach over the top of the bottle and twist into a handle (see dia-Unn Sankey

gram). There you have a safe, dependable camper's lantern.

Night Time

The wind makes music all night long, A lullaby of sleep-Sometimes it sounds like mother's song, Sometimes an organ deep-And in the sky the stars stand still, Like shining watchful eyes. And over all God kindly spreads The blanket of the skies.

-Effie Butler.

Mr. Peabody's Thinking-Cap by Mary Grannan

T was a very ordinary everyday cap of flecked tweed. It had a broad peak in front and a button on the top, and it hung on a nail in Mr. Peabody's workshop. Mr. Peabody puttered in his workshop, doing this and that, at his leisure. Mr. Peabody was old and had time to putter. He also had time for little Janey Little, who lived next door. One day he mended Janey's doll carriage. Another day he mended a kite, and every day he answered questions. Mr. Peabody always had a ready answer, but the morning that Janey brought her little green wooden horse to him, he was puzzled.

"Mr. Peabody," Janey said, "look at my little wooden horse. He's sad. His tail is all saggy and his mane is all draggy, and there's a tear in his eye."

Mr. Peabody looked at the little green horse, and it was a sorry sight indeed. He took the horse from Janey, looked at it, and then at Janey, with twinkling eyes and said, "Didn't I see your little green horse on the back step last night?

"Yes, sir," said Janey, "he was on the back step all night."

"And it rained in the night," said Janey's friend. "I think the rain accounts for the saggy tail and the draggy mane and the tears in his

Janey shook her head, violently. "It may account for the saggy and the draggy, Mr. Peabody, but not for the tears. These are real tears. I can tell the difference between raindrops and real tears."

Mr. Peabody raised his eyebrows and shook his head. If they were real tears, as Janey said they were, then he did have a problem on his hands. Why was the little horse crying? He shook his head again. "I'll have to put on my thinking-cap," he said to Janey, "this is something I can't figure out alone." He reached for the cap that hung on the nail. Then he snapped his fingers and winked at Janey.

"Do you know now, why my green horse is crying?" asked the excited little girl jumping up and down.

"I know . . ." said the old man. "That is, I know how to find out why he's crying."

"Did your thinking-cap tell you?" asked the amazed little Janey.

Mr. Peabody nodded. Janey looked at the shabby old cap on Mr. Peabody's curly old head, and she looked at it in wonder. The old cap had hung on the nail as long as she could remember, but she had never known, until this minute, that it was a thinking-cap. "Mr. Peabody," she said, "we must take care of that cap. It's magic, isn't it? It can answer all of our questions."

Mr. Peabody agreed, with reservations. "We must not tire it out," he said. "One question a day is all we must ask of the thinking-cap."

"Yes," said Janey, "one question a day! Mr. Peabody, what did it tell you about my green horse?'

"It said to me, 'Mr. Peabody, go to the Fair, your question will be answered there.' Do you think your mother will let you go to the Fair,

Janey went flying out of the workshop, across the driveway and into her own kitchen. Mrs. Little listened to her story, and smiled. "But Janey," she said, "you shouldn't take all your worries to Mr. Peabody. He's busy. He may not want to go to the Fair.'

"Oh, but he does," said Janey. "His thinking-cap told him that he'd find out, at the fair, why my horse was crying. You don't want my green horse to cry the rest of his life, do you

When Janey put it that way, what else could Mrs. Little do, but give her permission. She did. Janey and Mr. Peabody set off for the fair. Janey was carrying the green horse. Mr. Peabody was carrying his thinkingcap. "We might need it," he said. "It will be the same question, so the thinking-cap shouldn't mind if we ask it twice."

It was very exciting at the Fair. The cries of the vendors sounded like a great choir, out of tune. Janey laughed. She liked the sounds. She liked the smells, too. The roasting peanuts, the frying onions, the sizzling red-hots. And she liked what she saw: the balloons, flags and banners, the milling crowds of people! Mr. Peabody said that he was sure the green horse wouldn't mind crying a little longer. "Now that we're here, he said, "we may as well have some ice cream, and see the dog show and the monkey show, and the bicycling bears, don't you think?"

Janey thought so, and enjoyed herself greatly, as they made their way among the stalls. About an hour later, Mr. Peabody headed for the merrygo-round. Janey was glad. She had wanted to ride on the merry-go-round, but she had left all decisions to Mr. Peabody. "My thinking-cap told me that we'd find out the answer to our

problem on the merry-go-round," he

Janey laughed as they whirled about. Mr. Peabody was a comical sight, riding the golden horse that went up and down, up and down on his brass pole. When the music stopped, and they climbed down, Mr. Peabody nodded. "Would you believe it, Janey? Your horse is crying because he doesn't like to stand still. He wants to go around and around like a merry-go-round horse."

Janev sighed. "But he can't," she said. "He's too small to be on a merry-go-round."

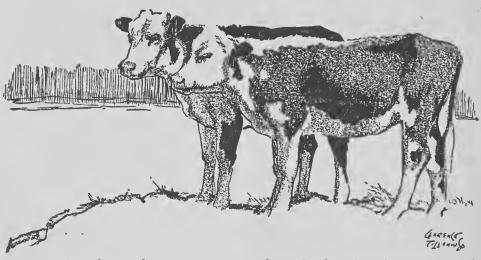
"Yes," said the old man, "but he's not too small to go around and around. I'll put my thinking-cap on again tomorrow. It will tell us what to do."

The next morning, bright and early, Janey ran to the workshop. Once again Mr. Peabody winked at her. "Run home," he said, "and get your spinning top. We'll put the little horse on top of it, and it can go around and around and around. That's what my thinking-cap told me today."

The little green horse was fastened to the top of the top, and he whirled happily. There are no tears in his eyes now, but his tail is still saggy, and his mane is still draggy.

Sketch Pad Out-of-Doors

No. 53 in series—by CLARENCE TILLENIUS



ATTLE, at least when young, are Gregarious: they are fond of company. This is a neighborly characteristic shared by most people. So when you see two or more calves standing in a field, they will most likely be close together.

Now you may not have considered this in your drawings, but the two half-grown calves standing together in the sketch are not two shapes. They must be thought of, and drawn, as one shape. This is rather a tricky problem for the novice: he knows there are two animals there, and yet is told to regard them as one.

The reason is that in all composition of pictures the design comes from the balancing of masses, and when any number of objects (or people) are standing close together, they must be observed and drawn first as a single group or mass. So, in drawing these

calves, the first thought should be the silhouette of the two animals together -the outline of the group. At the same time the anatomy, the actual proportions of the animals must be estimated and correctly indicated. After this, comes the separation in simple outline of the white and colored areas, then the further development of form by indicating the shapes of shadows.

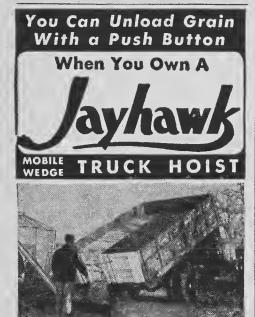
For an exercise in design, it would have been quite possible to have drawn these animals as a pure black and white pattern, leaving out the shadows and gradations of color. You can do this with almost any subject, but the most interesting effects are gotten when the subject is not all one color. It is the shapes of these black and white or grey and white areas that make them interesting to the be-

CPICKET 17 ANYONE

Fishermen who begrudge the effort involved in catching live crickets for bait can buy a quart of them, by mail, from a Georgia cricket farm.

We learn that it takes fifteen days for cricket eggs to hatch, eight weeks for the insects to grow to bait size. We note, too, that the brooders where they laze about in 85° temperature, lapping up chicken mash, are made of aluminum. But we confess we're not too surprised. It simply means that this busy metal has found still another use in the busy housing industry—this time providing clean, warm, pleasant quarters for aristocratic crickets. You see aluminum everywhere these days!

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cost, mounting cost, annual cost.

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Carcass Grading?

Continued from page 9

the rapid improvement of hogs in the United States. The latter development can mean the loss of our very remunerative market there for pork products; or it could even eventually mean the invasion of our market by products from the United States "meat-type hog."

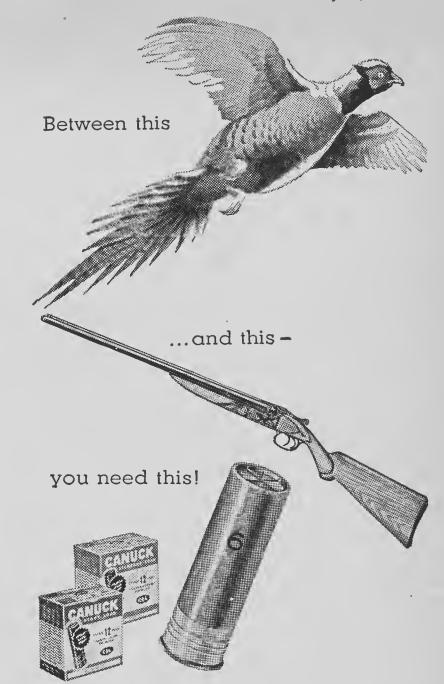
Responsible representatives of farm organizations and departments of agriculture are searching, therefore, for ways and means of providing new incentives for improved hog quality. It is felt by many that a revision of the hog carcass grades would be a step in this direction. The present grades were based on the live grades then in use. This was a logical beginning, since both systems were to run concurrently for several years.

It has been found, however, that present grades call for some mixing of qualities. This is hardly consistent with commercial values; and it is also apparent that the weight ranges are somewhat higher than they need to be, to meet present market demands for lean cuts of small size. It is probable that some readjustment of these grades and weights would provide for a closer evaluation of the carcasses, in accordance with their usefulness in the meat trade. Such readjustments should result in better returns for the better hogs, and discourage the production of the undesirable kinds.

THE increasing use which is being I made of the carcass grades for beef, as a basis of settlement to the producer, is pointing up the desirability for a closer evaluation, particularly in the third grade, "C" or Commercial. As presently constituted, this grade includes a fairly good kind of carcass at the top-just below the Blue Brand – and ranges down to young cows of beef type, including overfats. Another factor is that where the trade desire to ribbon-brand Commercial beef at the retail level, such branding is usually restricted to the better end of the grade, or so-called "top commercial." The majority of consumers want leán, tender beef, and this comes from youthful animals which are not highly finished. Under the grading system this kind of beef falls into the B grade and the top part of C grade.

It seems possible that consumer preference may tend to swing from the more highly finished beef of Choice, or Red Brand, quality, toward the kind called "top commercial," especially if the latter is branded and offered at retail in greater volume. The high-class hotel, railway, and restaurant trade takes care of a large proportion of the top grade, in any case, and the production of leaner beef should be right in line with the trend toward grass farming in some areas, and the search for more economical production in all areas.

The difference in cut-out yields of trimmed retail cuts from carcasses of varying degrees of finish, or fatness, has always been an important factor in determining the value of a beef animal, either on the hoof or the hook. This is assuming greater importance as the retailer tries to meet the consumer's wishes for leaner cuts with the fat trimmed off. Generally speaking, the more highly finished the



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Chief mounting brackets are made available for new model tractors as they appear on the market. Contact your supplier for information on tractor models not listed above. Manure fork and material bucket shown above. Other Chief attachments include 78" angle dozer, 60" bulldozer, 84" snow and grain bucket and manure plate for fork.

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a fine cut with a DISTINCTIVE flavour

animal is, less of the total weight goes to the retail counter. This means that some carcasses, even of excellent conformation, must go to the bottom of the third grade, and is one of the reasons for the wide range in quality within the third grade, or commercial, at present.

NAMING and marking the grades is somewhat contentious. Some retailers will handle only the "best" and therefore offer grade A or Red Brand beef only. Others handle only Red and Blue Brands. There is provision for branding the other grades, but it is claimed that "top commercial" will never be popular, so long as it is stigmatized by the designation "C" or third grade, no matter how many people would consider it good eating meat. It has even been said that the government grades are "upside down," and that the top three grades should be reversed in nomenclature. The fact is, of course, that there is considerable variation in consumers' appetites and purses, and naturally there are differences in their appraisal of the official grades. One family might quite properly place the three top grades in reverse order of preference, as compared to another family. It has been well said that "all beef is good beef for the right purpose." Government grading merely seeks to set out and identify the main distinct qualities found in the commodity concerned so that each quality may be evaluated according to the supply and demand for it. It is difficult, therefore, to find a set of grade names or designations which will suit everyone.

These are some of the considerations which are causing the examination of present grade standards and recommendations from various farm organizations, with respect to revisions in the hog and beef carcass grades.

The carcass grades for lamb, mutton and veal appear to be reasonably satisfactory for the present. Some small adjustments in the weight ranges for lamb and mutton are under way, as well as the elimination of an odd subclass which seems to be superfluous.

THE national grades and the grad-L ing service which goes with them are set up and maintained by the Federal Department of Agriculture, as a service to the producer and consumer. Officers of the Department do the grading, but this grading is not compulsory, unless made so by provincial authority. Federal jurisdiction extends only to those commodities which are moved interprovincially or on export; and to date, in the case of meats, it has not been considered useful to require such shipments to be graded, when grading was not required within the provinces concerned. The only requirement of this nature, so far, is that bacon exported to the United Kingdom must be graded and marked in accordance with national standards. Most of the Canadian meat surplus now goes to the United States, where it is purchased according to the buyer's appraisal, rather than on Canadian grade standards.

There are two factors, therefore, which will determine the scope and rate of future development in meat carcass grading, and branding, for consumer information. One is popular demand, which has been largely responsible for the progress made up to

the present, and which is still spreading slowly. The other is provincial legislative action, which is important in British Columbia and Saskatchewan, where it has been applied. The steady development of the carcass basis of sale by the producer seems likely to continue independently of whatever progress is made at the retail-consumer level.

The role of the Federal Department of Agriculture is restricted to one of education, co-ordination, maintenance of national standards, and the rendering of a grading service where it is required. Thus, it is not a simple matter to reach general agreement on any proposed change in grade standards, or procedures. Not only must provincial departments approve, in cases where they have concurrent regulations in effect; or under consideration, but if the revisions are to receive general support, they must be accepted by producers and processors generally. One of the real difficulties is the lack of unanimity of opinion in either of these segments of the industry. The differences of opinion tend to be regional in nature, even within national organizations; and it is to be hoped that further consideration and consultations will result in decisions which will be acceptable in all parts of the nation.

(Note: H. J. Maybee is Chief, Livestock Division, Canada Department of Agriculture, Ottawa, and responsible for the operation of federal carcass grading.—ed.)

He Plans Two Flocks a Year

ITH an output of about 850 eggs a day, Verne Parker, of Sanford, Manitoba, is planning to increase his laying flock to well above the 1,000 mark this year. He hopes eventually to have two flocks a year to meet a strong demand from customers, including a big restaurant chain in Winnipeg.

In addition to about 1,000 laying birds, which he bought in March, 1955, he has 2,000 White Leghorn pullets for use as replacements this summer. He also keeps 1,000 Light Sussex capons for marketing at around seven to eight pounds next Christmas. Another side of the business is a caponizing service provided for farms over a wide area.

Mr. Parker feeds a hundred bushels of grain a week to his flocks, growing all the wheat, oats and barley he needs on his 450 acres, which also includes a small flax acreage. Capons and pullets are all fed supplements containing an antibiotic, and, as a result, he finds that his poultry are not much troubled by disease.

He favors the deep litter system in his houses, which are warm and dry with good window ventilation, and ample space provided by two floors in each house. The laying birds are kept in groups of about 500 to a room, with community nests. Hanging feeders have been installed this year, replacing troughs, and as these need to be filled only every other day, they save an appreciable amount of work, as well as permitting a more efficient feeding system. There are many larger poultry farms, but Verne Parker's is a model of clean, efficient, and selfcontained production.

Science And the Farm

Science is attacking the farm front in a thousand ways. Here is a small sampling over a wide area

To tenderize the tougher cuts of beef is the object of research now under way, with financial support from the American Meat Institute Foundation in the United States. The program now being tested commercially on a pilot scale, involves freezing and dehydrating cubes and slices of beef. Later these are immersed in water to regain approximate normal moisture content and condition for serving. To add flavor to the meat and make it more tender than it was before freezing and drying, various enzymes, which attack the proteins, are being tested. They are added to the water in which the beef is soaked after freezing and drying. Though the immediate work is directed toward reducing the cost of storage and transportation for the U.S. armed services, the Meat Institute hopes that it will pave the way to the creation of frozen dried products useful for civilian consumption. V

The Rothamsted Experimental Station in England has found that sugar beets will grow faster after there has been a fairly long drought than plants which have not been exposed to drought, even though the amount of rain may be small when the drought is broken. This study was undertaken with a view to increasing the efficiency of irrigation water. It involved measuring the dry weight and the leaf area of beet plants from a dozen irrigated and unirrigated plots. The rates at which both types of plants assimilated moisture were also measured.

Beef calves do not need to be kept gaining constantly, to make profitable beef, according to the U.S. Department of Agriculture. They must, however, be kept healthy and provided with sufficient protein, minerals, and carotene. The experiments were conducted by using identical twin calves, one twin of each pair being fed a restricted diet from three to six months of age, or from four to eight months. The experiment showed that at the end of the dieting period the calves on the restricted diets gained weight quickly, and soon caught up with their twins that had been fed normally. V

Sesamolin is an oil from sesame seed that serves as a powerful booster to pyrethrum, a powerful insecticide. The chemical structure of sesamolin has been worked out and it has been found to increase the insect killing



"How many times have you been told not to come home with DRY feet?"

power of pyrethrum by 31 times, without effecting the low toxicity (poisonous) effect on human beings and warm-blooded animals. Some 12,000 to 15,000 acres of sesame were planted this year in the southern United States, and new varieties of sesame are on the way which will be more readily harvested by mechanical means than those presently in use. Ultimately chemicals of the sesamolin type may be expected synthetically.

Chemical insecticides under some circumstances can actually bring about an increase in the numbers of harmful insects attacking plants. Workers at the University of California tested groves of avocado, where pests were controlled by their natural enemies, and where insecticides had never been used. When chemicals were applied on these trees, or some part of them, serious attacks of the avocado brown mite developed where they had never been troublesome before. After two years of treatment by insecticides, the treated trees now have a serious pest problem. In another test, in which 1,400 ladybird beetles, which feed on mites, were picked from one citrus tree, it was found 60 days later that the citrus red mite had seriously damaged the trees so denuded of their natural protectors.

Riboflavin, a "B" vitamin, is an important vitamin and one that is often deficient in human diets. It is destroyed by light, which is the reason milk should be protected from the sun, or from strong daylight. This vitamin is one of the ingredients in vitamin-enriched white bread; and a controversy has been under way in

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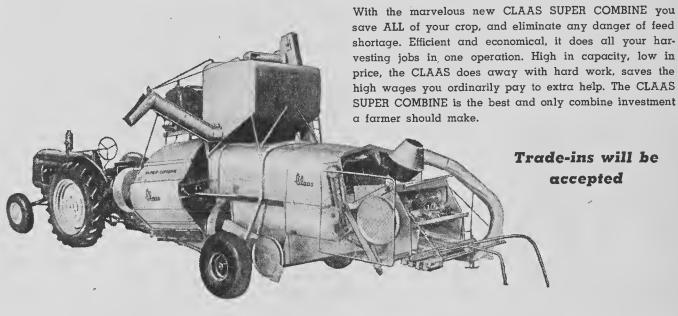


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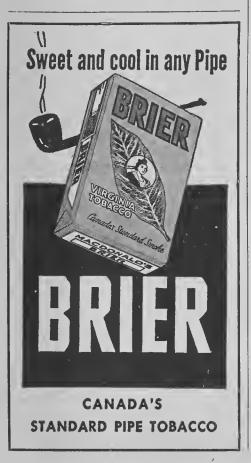


For Each Member of the Family . . .

City

The Country Guide's editorial staff provides inspiring and practical suggestions to help you succeed as well as for better living.

Cembiet



Chicago as to whether more riboflavin is lost when the bread is wrapped with cellophane, or with opaque waxed paper. The Institute of Food Technologists in the United States reported that bread wrapped in opaque waxed paper retained some 30 to 60 per cent more riboflavin than bread wrapped in cellophane. The American Institute of Baking reported that tests in its laboratory and elsewhere, showed very small differences in the amounts lost, regardless of which wrapping was

Tobacco mosaic disease is a very serious disease of the tobacco plant. It was recently found at the University of California virus laboratory that the virus causing this disease can be split into two parts, each harmless by itself, which can be recombined to produce a virus as harmful as the original. These separate parts are ribonucleic acid, a chemical essential for cell growth, and a covering of protein. It now has been discovered that the virus can lose part of its protein and still retain a large part of the virulence of the virus: When the protein part of the virus was heated with detergent for ten seconds and then reactivated, the resulting virus had a lower activity than the original.

Certified Seed Is Like Purebred Livestock

Cornell authority tells Canadian seed growers to expect a big increase in the demand for it

F farmers heed the logic of good crop production, as stressed at the Canadian Seed Growers' Association annual meeting in Amherst, N.S., they will be seeding more certified seed of both cereal and small seeds varieties, and it will pay them well to do it too.

Dr. A. A. Johnson of Cornell University pointed out that certified seed, which roughly corresponds to purebred animals in the livestock business, rather than mongrel stock, can cut production costs. It costs slightly more, but seed itself represents only about five to seven per cent of total production costs.

The right varieties of certified seed will more than make up the difference in cost. For instance, Garry oats will give 30 per cent more yield than Mohawk and Clinton; and Narragansett has a 15 per cent yield advantage over Ranger. High yielding varieties are more responsive to fertilizer, too, giving the farmer more returns for his hours of labor.

Meanwhile, seed drill surveys have shown that great quantities of troublesome weeds are sown with inferior seed each year. One survey of 130 drill boxes showed farmers seeding, on the average, 2,720 wild oats, 1,600 wild vetch, 7,040 wild mustard, and 2,480 couch grass seeds per acre. Yet high quality certified seed was available.

Dr. Johnson said that certified seed is invariably closer to the true variety type, and virtually free from common and noxious weed seeds.

In many areas, and with many plants, the swing to such seed is fast. In New York State, where only seven years ago no certified alfalfa seed was used, 84 per cent of the seed now distributed is certified; 97 per cent of all wheat sown in New York is of recommended varieties, and 12 to 15 per cent of it is certified seed; and 90 per cent of the oat crop is planted to recommended varieties.

Looking at other countries, he said that Danish farmers plant almost exclusively their equivalent of certified seed. He expected the two Winnipegdeveloped oats, Garry and Rodney, to make up 90 per cent of New York State's oat plantings in 1957. Canadian-produced Dollard red clover and Climax timothy are in demand in the United States, too.

By every standard, he said, certified seed of recommended varieties is the best buy. He urged seed growers to carry the message of good seed to farmers across the country, and to prepare for the time when 75 to 90 per cent of seed planted is certified because certified seed cuts production costs, and means bigger yields and more profits. That is what farmers want, and must have.

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Farm Comment



"Ho! Hum! This is tiresome work, and I'm hot! No respectable person should have to do this."

He Produces Eggs for Hatching

A quarter-century of poultry experience is behind this 8,000-hen flock owner

N his quarter-century in the poultry business, Fred McIndoo has kept pace with the fastest-changing branch of farming. It has resulted in a plant he could never have imagined back in 1930. But more important, it has kept the worst effects of the present farm squeeze away from his farm home at Ida, in Peterborough county, Ontario.

From the first few birds which this black-haired, square-jawed farmer raised in an old pen in 1930, he has specialized and expanded until the entire stable and barn have been converted to multi-decked laying houses. Even the barn yard between the wings has been built over with laying pens. He has built new laying pens, too, as well as brooder houses and feed rooms; and has a pasture for the pullets as well.

From his original flock of laying hens for store eggs, he swung over to a hatchery supply flock. Then he switched from the one-flock-a-year basis, when the pens were emptied in mid-May and remained that way all summer; and now runs three separate flocks each year, turning out eggs around the calendar, like a production

He has seen the broiler business rise to prominence now, leaving the capon, or meat cockerel, almost obsolete. Now he produces for the broiler trade himself, while staying with a popular strain of Barred Rocks. The hatchery which takes his eggs and has a special market for that particular strain is now providing their own cockerels,-a white selection of Barred Rock. This means that the resulting chicks will be largely white, to avoid the black pin-feathered problem, and will possess hybrid vigor for faster and more efficient growth.

All the while he has been building his 8,000-bird laying flock. Fred Mc-Indoo has retained a conservative approach to his business that would do credit to a banker. His greatest satisfaction is that his son Don has joined him now, following completion of the diploma course at the Ontario Agri-



Fred McIndoo holds a white cockerel which he mates with Barred Rock hens.

cultural College, and they run the farm as a partnership. He has patronized the same feed company since he began to buy feed, for no more glamorous reason than that they have always provided him with good feed and good service.

MR. McINDOO has a strong belief in the value of good pasture for pullets. Even if his birds only get a month of it, he claims, it builds their resistance, and trains them to roost. Although he has water under pressure in every pen, he has shied away from automatic feeders. Hand-feeding permits more individual attention, he has found, and with three separate flocks in different stages of lay, special care for each is essential.

He still uses individual nests for the laying birds, and grades the eggs on the farm, shipping only the best ones for hatching. In summer, when the pullets can be turned to pasture, leaving some spare accommodation indoors, he usually puts in 3,000 or 4,000 broilers himself. Two reasons dictate this program. First, he wants to check on how well his birds will do as broilers; and also keep every inch of floor space working.

In all, this specialized poultry farm, with its huge pens handling from 400 to 1,000 birds apiece, will carry 15,000 to 20,000 birds at any one time. Since two sets of farm buildings are available, the young stuff are raised at one, and the laying hens housed at the other.

Looking after them are two or three hired men, and Fred and Don Mc-Indoo.

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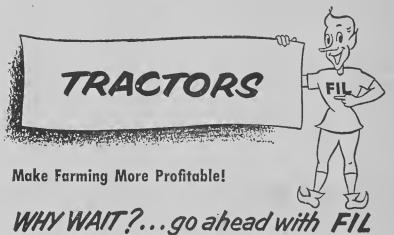
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Good livestock and good conditions in the feedlot are important in John Pahara's book

NE of the most important things to remember in a feedlot operation is to keep your animals from lying down in the wet," said John Pahara of Lethbridge, Alberta. "As soon as it storms, we get right in there and spread clean bedding-my dad taught me that."

Another thing John's father taught him was an appreciation of good livestock. Although he deals in grade cattle, he buys his feeders with an eye to uniformity of size and appearance. Sometimes he does a good deal of shopping around, at community auctions in Medicine Hat, Lethbridge, Pincher Creek, and even farther afield, to get the quality of animal he wants. For all-round performance, John's favorite type is a Shorthorn-Hereford first cross. Once on the farm, the animals get the best possible care, so they will make economical gains over the feeding period.

This policy has paid off in dollars and cents. A year or so ago, 40 head of Pahara steers that were sold at Portland, Oregon, averaged 1,250 pounds apiece, and topped the market in price.

WHEN John's father came to Canada from the United States in 1891, he first homesteaded in the Cameron Ranch area, farther west. In 1917, he moved to the Lethbridge

farm, where his family-three boys and two girls-were born and raised. On his retirement the place was divided among them. John Pahara's share was the quarter-section he now operates, so farming and livestock have been a part of his life, for as long as he can remember. This bids fair to become a tradition in the Pahara family. Most of them are still on the land, and John's two boys-Dennis, 11, and Monty, 8own 10 of the 250 calves in the feedlot, and keep a constant check on

When John was a youngster himself, he belonged to the Lethbridge-Coaldale Calf Club. Later he coached the same club for several seasons, and he still gives them a hand now and then, when called on. Apart from farming, his other main interest has been the boxing ring. Twice Pahara represented Alberta in the Dominion heavyweight boxing finals; and he still serves the local boxing club as a member of the finance committee.

This year the Pahara farm is geared solely to the feedlot operation. Last fall, John bought about 250 calves which averaged 435 pounds in weight, and cost him 15 cents a pound, delivered on the farm. By the middle of April, he had been feeding them for 130 days, and the average weight was close to 650 pounds. When these are

finished in July, their places will be taken by feeder steers for the fall market, if cattle are available then at the right price.

IKE most farmers these days, John L keeps a close tab on costs. The size of each year's feeding program, and the type of feed used, depends on what is available at what he considers "the right price." For example, he won't feed beet pulp, if the price is above \$24 a ton, although there is plenty of this supplement available in the Lethbridge area.

"Pulp is good, but no better than grain," stated Pahara. "I've used both for years. As a matter of fact, the best steers sold off this place have been grain fed.'

Most of the hay, and about half the grain used is produced on the farm. The hay is a mixture of oats and



(l. to r.) neighbor Harry Dowling, Maureen, John and Lillian Pahara.

peas, sown at the rate of two bushels of oats and 100 pounds of peas to the acre, and the grain is chiefly oats and

For many years, about one-quarter of John's cultivated land was used for sugar beets. These were worked into a four-year rotation of hay, oats, barley, and beets. Lately, he has abandoned beets in favor of a straight hay and grain program. This cuts down the work, and gives a maximum amount of livestock feed.

The feedlot is located on an alkali bed that has been shored up with rocks removed from other sectors of the farm. Apart from the fact that this turns a piece of non-arable land into a productive unit, the alkali appears to have had other effects worth noting.

When The Country Guide called, John pointed out a puddle of water in a depression near the drinking trough. "Soon as I see any signs of footrot, I just run a bit of water into that hole, and let the cattle wade about in it," he said. "It clears up the infection in no time."

This was something worth investigating, because according to every pamphlet on footrot, this should make the infection worse. Calgary veterinarian, Dr. Morris Hanson, suggested the answer lay in the high alkali concentration in the feedlot soil. What appeared to be happening was that the animals were actually getting a lime bath, which is one of the measures recommended to ease footrot.

If that's the case, John Pahara's farm has built-in medication. Maybe other farmers with alkali beds will look at these non-arable patches in a new light.

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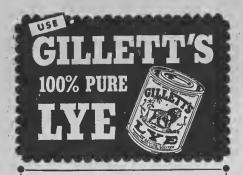
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Gillett's "One-Two" Action

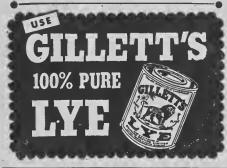
One — Gillett's Lye solution actually attacks all fats, oils and grease which make cleaning a chore. It lifts greasy dirt from cracks and hard to-reach corners.

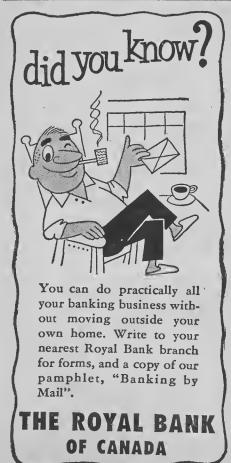
Two — Gillett's Lye reacts chemically with the grease it removes to form a mild soap solution! This solution then thoroughly washes and sanitizes the grease-free surface. You get a double cleaning action with a single application of Gillett's Lye!

Garage Floors

"One-Two" cleaning action is particularly effective on garage floors where heavy grease may damage rubber tires. Use strong solution of 6 tablespoons of Gillett's per gallon of water. Scrub with an old brush.

GLF-213





Dairy Cows And Cash Crops

oLD frames and hot beds go right along with box stalls and stanchions on the Lloyd Little farm at Maidstone, in southern Ontario. Despite a 25-cow milking herd and a fluid milk market in Windsor, that pays top prices on about 80 per cent of his milk during the year, Mr. Little claims that farming today requires additional cash income.

On his high-priced land, he calls cash crops a necessary supplement to the milk cheque, so about six acres of tomatoes and a few acres of peas are grown for canning. His 198 acres also allow a cash crop of winter wheat, and a field for tobacco, which is share-cropped by a tobacco grower.

His major companion crop to the milk producer is corn. He grows 70 acres of it; some for silage, but most of it for sale as seed corn.

Such a variety of valuable crops necessitates an intensive cropping program on his best land. He grows corn for two consecutive years, then follows with a crop of peas or tomatoes. Next a year of clover rests the land, and replaces some organic matter. The land then goes back to corn.

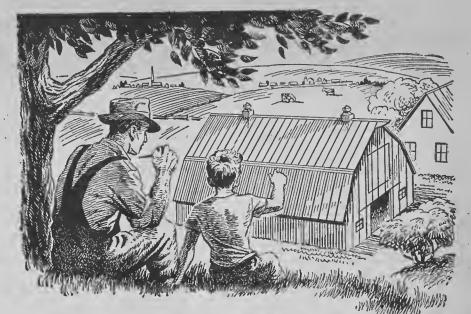
Big Crowd At Feeders' Day

ORE than 1,200 people of all ages attended the 35th annual Feeders' Day at the University of Alberta farm last month. While members of the Animal Science Department spoke in turn to a capacity audience in the livestock pavilion, loudspeakers carried their messages to the overflow crowd at various points outside.

Visitors drawn to the popular event from farms all over the province, heard reports from Drs. L. W. Mc-Elroy, department head; J. P. Bowland, R. T. Berg, and J. E. Bowstead, on beef, dairy cattle, and swine experiments that were conducted by the university during the past year. Among the most interesting of these was a test started last December on the use of the synthetic female sex hormone, stilbestrol, in fattening steers, and another on the crossbreeding of swine. for commercial production, where the performance of Lacombe X Yorkshire crossbred pigs were compared with purebred Yorkshires.



"Harley, you have the wrong idea on bulk milk handling."



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- LIGHT and EASY to HANDLE and APPLY cuts shipping cost, time and trouble!
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Vol. LXXV

WINNIPEG, JULY, 1956

No. 7

Wheat Movement

As this is written, a statement of the amount of wheat moved during the current crop year has just been issued in Ottawa by the Rt. Hon. C. D. Howe, Minister of Trade and Commerce. He told the House of Commons that producers had delivered 30 million bushels more wheat than during the same period a year ago, and 12 million bushels more of all grains.

"I may say that in my years in the wheat business, I have never seen wheat moving at the rate it is moving today," the Minister said . . . "Although later official figures are not yet available, I would think that as of today, Canada has exported as much wheat and flour this crop year as during the whole of the crop year 1954-55."

Approximately 2,200 cars were being loaded daily at country points in western Canada, but apparently the Canadian Wheat Board was experiencing difficulty in equalizing the quotas at points across the prairies, because the wheat mostly in demand was No. 4 Northern and lower grades. There had been a very limited demand for No. 3 Northern up to that time, and the Board was making every effort to move more wheat of that grade.

Farm organizations have been fairly unanimous on the use of the quota as a means of regulating the amounts delivered in periods of excess production, or slow movement out of the terminals. It is bound to exhibit disadvantages in periods such as the present, when all facilities are being taxed to take care of unexpectedly large demands for specific grades. Farmers can only deliver the grain in the grades they have produced, and elevators can only ship the grades which have been delivered to them by producers. Similarly, the Transport Controller and the railways can only move the grades ordered out by the Wheat Board in response to demand. It is to be hoped that the situation will be sufficiently flexible by the end of the crop year, that deliveries at the 600-odd points where quotas were four bushels, or under, will have been substantially increased.

Trade with Britain

L AST year, Canada sold Britain goods to the amount of \$722 million. We bought from Britain last year, goods to the value of \$400 million. Our purchases from Britain were 8.5 per cent of our total imports, or 1.1 per cent less than in 1954, despite the fact that we increased our total imports by 15 per cent, our imports from the United States by 16 per cent, and those from West Germany by 25 per cent.

For long years, Britain was by far our best export customer, and until the beginning of World War II, retained a position approximately equal to that of the United States. Since World War II, however, trade with the United States has increased markedly, but each year we sell much less to our American neighbors than we buy from them. Britain is still, however, our second best export customer, and by long odds our best wheat customer.

This disparity in trade between Canada and Britain is not a matter which should be solely the concern of Britain. Mr. James S. Duncan, president of Massey-Harris-Ferguson Ltd., who is also chairman of the Dollar-Sterling Trade Council, has pointed out that Britain's loss of \$640 million in her gold and dollar reserves in 1955, and a continuing deficit in her trade with Canada, could well be a matter of serious concern to this country. He has offered four reasons why trade with Britain should be a matter of concern to us now. One reason is that, even though Canadian export prices may be fully competitive, other countries may not be able to purchase Canadian goods because of restrictions on imports, or the lack of dollar ex-

change to pay for them. This would mean that the inability of other countries to pay us in dollars, would become as important a factor in restricting our export trade, as our failure to be fully competitive. Another reason is that it would be unfortunate if Canada allowed herself to be tied too closely and exclusively to the U.S. market, to which we cannot expect to sell any substantial quantities of wheat and flour. Moreover, the U.S. market for many products is not too dependable, owing to a long-time tendency to restrict imports by one device or another, as, for example, recent tariff increases, or restrictive quotas, on dairy products, feed grains, linseed oil, and frozen fish.

A third reason is that, whereas we export to the United States products which are mostly produced in that country in substantial volume, we export to Britain mostly items that are not produced in large quantities there, with the result that we meet with little difficulty from domestic producers. A fourth reason is that sterling is a currency used by many countries outside of Britain, which acts as a financial center for the Sterling Bloc. Anything, therefore, which increases the convertibility of sterling, will be helpful to Canada, not alone in the British market, but in the sale of Canadian goods in many other countries.

It is true that it is most convenient, as a rule, to buy from one's next-door neighbor. It is also easier for a close supplier to give the necessary service, such as farmers expect with their purchases of agricultural machinery and equipment. There are occasions when Britain acts in ways that are difficult for us to understand, as, for example, her refusal to sign the International Wheat Agreement. Nevertheless, from a purely agricultural point of view, she is the largest net importer of food products in the entire world, and we want to keep that market available to us. To the extent that we carelessly, or unnecessarily, contribute to her inability to buy what we have to sell, we are letting the best food market in the world go by default. V

Education and Farming

WE have sometimes wondered if the time will come when every farm leader will carry a university degree. That time seems a long way off now, but we are convinced that it is inevitable, and that it may come much sooner than many of us think.

The present period of surpluses and declining prices, coupled with the much talked of decline in the numbers of farms, is a direct consequence of the technological advance and the spirit of scientific enquiry engendered by World War II. Wars are not generally believed to be either desirable, or, in the long run, profitable, but they do energize in remarkable fashion the peoples engaged in them. The increased productivity per man in agriculture throughout all of the western world, is a direct result of a spirit of enquiry encouraged to an abnormal extent by the necessities of war. Climate, of course, is always a factor as unpredictable as it is important, but it does not account for farm mechanization, the feverish outpouring of new varieties, or the rapid introduction of new herbicides and pesticides, or for the discoveries of antibiotics, hormones and fertilizer materials.

A university degree may be of little value in itself, but the development of the mind and the training of the individual, which it signifies, is of the greatest significance to the individual, the community in which he lives, and to the nation. Doubts about the value of democracy as a form of government always hinge on the question as to whether a democracy will educate itself rapidly enough to keep it working satisfactorily in times of change and stress.

Agriculture is not a dynamic industry. It operates under conditions peculiar to itself. To operate successfully in relation to other parts of the national economy, the highest practicable degree of general education is imperative. Practical experience is not enough, because by the time an individual farmer acquires it in sufficient degree to compensate for lack of academic education, he has too few years remaining in which to use it.

In view of these considerations, it is a lamentable fact that our colleges of agriculture are so poorly attended, and equally regrettable that so few farm young people are able to complete high school. This is the time of year when farm parents and young farm people should be thinking on these things. For many, it may be the last opportunity open to them. \vee

The Need for Scientists

THE man on the street, or on the farm, seldom has occasion to fully appreciate the extent to which science underlies modern industrial, commercial, and agricultural life today. Proof that it does is evident all around us, but is nowhere more striking than in the current demand for men trained in, or for, science, by industry of all kinds, including agriculture, and governments at almost all levels. Canadian and American universities are constantly harassed by two major problems: first, how to meet the demand from all directions for trained university graduates; and second, how to take care of the vastly increased numbers of university students who are expected during the next decade or more.

The unprecedented increase in prosperity which has characterized both Canada and the United States since the war, is primarily responsible for the unprecedented demand for trained personnel. Trade, commerce, manufacturing, construction and finance have all flourished. Agriculture, too, enjoyed the most prosperous period in its history immediately after the war. Not only has this increased activity developed larger demands for both durable and consumer goods, but the demand, in turn, has acted as a spur to the enterprise of business and the resourcefulness of scientists in all fields. A flood of new products, made in many cases from new materials, would have been impossible without the activity of scientists. The greatly increased construction of factories, houses, roads, bridges, and so on, has created an unprecedented demand for engineers. Agriculture has also benefited by a constant stream of new products, such as fertilizers, pesticides, weedicides, antibiotics, hormones, plastics and equipment of all kinds, none of which would have been possible without the work of thousands of scientists, all of whom secured their prior training in our universities.

All of this offers striking proof,—which comes to us, sometimes, in such small bits and pieces as to make us insensible of the changes they signify—, that the world of our grandfathers is completely gone, and that of our fathers receding rapidly into the past. Agriculture is sometimes slow to realize the significance of changes that are going on about it. This is, in fact, one of the reasons why average farm income tends to fall behind that of other and more dynamic segments of the national economy. There are, undoubtedly, other and more fundamental problems involved, but the fact that agriculture is slow to unite in its own defense, is primarily due to a lack of awareness, which is common to large segments of the industry.

Something to Remember

A LL Canadians who value a democratic system of government must have been shocked by the disgraceful events which took place in Parliament during the passage of the Pipeline Bill. We have been accustomed, in this country, to an orderly conduct of parliamentary business. We have not been accustomed to rude interruptions, name calling, defiance of the office of the Speaker, and what would appear to be an almost complete abandonment of dignity in the House, which is the least that the sovereign people have a right to expect from their elected representatives.

It is not our purpose to discuss the pipeline question, or any of the events connected with its passage, in any detail. Our sole purpose is to protest against the undignified manner which the House permitted itself, or many of its members, to act during this period. Our hope is that if, after another period of 25 years, closure should again be applied by the party in power, the House will have learned to handle itself with decorum.

Strange Shapes Carved in the Mountains

Gaunt, tall and mysterious hoo-doos have created Indian legends and many mysteries

by IRENE LOUISE HARRISON

OTHER NATURE is a master carver, and her tools are rain and wind and frost and snow—and endless time. For with these as her aids, she has carved many wonderful things in the cliffs and mountains

all over the world, and she did not overlook Canada in her travels.

In many places along the Bow River in Alberta, stand the hoo-doos. Gaunt and tall and mysterious, they stand, resembling huge bears, rearing up on their hind legs, giant men with arms akimbo, giraffes trying to see over the next ridge, and in fact the imagination can easily liken the strange shapes to almost anything.

A cruise down the rivers and lakes in the region of the Rockies, will find the guide pointing out many wonderful carvings high up in the side of the mountains. A natural cave, its doorway yawning open like the mouth of a tired child may be seen. The boat rounds a bend in the lake, and attention is drawn to the highest peak of the mountain ahcad. Clearly etched against the azure blue sky beyond arc

to be seen the head and shoulders of a huge elephant, complete, even to the resemblance of ivory tusks.

Continuing further, the vantage point is lost, and the back of the elephant begins to stretch out endlessly. Losing interest, a search begins of the faces of other cliffs and mountains for other faces and forms. On another mountain may be seen the sun-bronzed face of The Old Man of the Mountains. Just above him are the snow-capped mountains.

The Indians were always quick to discover the faces and forms in the rocks. They would weave a story of mystery and romance about them, and many of these became legendary. They called them "The Spirit of the Rocks," believing they were inhabited by spirits, that would become angry and hurl themselves down upon them, if they did not appease them with gifts and sacrifices.

But near Lethbridge, in southern Alberta, are to be found mysterious carvings on sandstones that are not so readily explained, for these were not made by nature, but by the hand of man. Science has not been able to offer a solution for their being.

A Government man by the name of James Doty discovered the Writing on Stone in 1855. The sandstone rocks were worn by wind and weather into thousands of strange shapes, but carved upon their surface were hieroglyphics of men, horses, spears, bows and arrows, etc., and some of the rocks had been colored with a red earth paint that still is in evidence today.

At first the white man believed this to be the work of the Blackfeet Indian tribe, that he had been sent to dicker with. He was amazed to find, however, that the red man was as firmly convinced that the white man was responsible for them. A few of the older and wiser ones said that it was the work of spirits, who had used this means of leaving a message with them.

ONE old Indian declared that once a young boy had stepped forward and begun to trace the carvings with his finger. Immediately he was seized with a violent trembling, strange and weird voices filled the air and the ground shook, while those that watched were overcome by a feeling of helplessness.

The place has been declared a park, but visitors are not too numerous because it lays quite a distance from a paved highway. Government officials are worried, however, that the strange carvings may become obliterated with modern carvings such as "Joe Loves Mary," or "I.X.C. Oklahoma, 1960," if the place should become too popular. Like many of the country's "First Things," they are endeavoring to preserve these hieroglyphic carvings for future generations to view with awe and wonder.

Amateur archaeologists have made an intensive study of the writings, and have declared them to be everything from Egyptian to Phoenician, and some even claimed that the strange writings were the work of prehistoric cave dwellers.

Which makes one ponder and wonder in this, the year after the fiftieth anniversary of that part of the great Dominion—just how old this country really is.



"There's no other kind can touch 'em, lad"

Most men who've been farming for a long time know their tractor tires pretty well.

From their own experience, they tell us the Goodyear Super Sure-Grip is in a class by itself. No matter what job they tackle, they can count on Goodyears to handle it.

If you're of two minds as to what tractor tire to buy, we suggest you do this. Ask a man who uses Goodyear Super Sure-Grips—right in your area—what he thinks of them, especially when the going is tough.

We're pretty sure of what he'll say. Every

year we talk to thousands of Goodyear users and almost to a man we get their vote of confidence.

Over the years, the *users* of Goodyear Super Sure-Grips have proved to be our best salesmen. They know "there's no other kind can touch 'em".

When you buy new equipment, specify Goodyear Tires. And be sure you use Goodyear Truck Tires on your truck. They're built stronger to stand up to truck work. Your Goodyear dealer will help you get the *right* tire to suit your needs.



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This Lure Glows with a Strange Light . . Makes Fish Bite Like Crazy

GERMAN SCIENTIST'S INVENTION WHAT IS IT DRAWS IN FISH LIKE A MAGNET

Deep Penetration Power Attracts Fish from Far Away

Are you down on your fishing luck? Have you been coming home with an empty creel? Have you invested hard earned cash on the latest fishing tackle, fancy lures and bait - only to be frustrated time after time? No matter how unlucky you've been, the new revolutionary Lurene U-350 discovery may change all that quick! It's something new - developed after 21/2 years of experiments! It's unlike anything ever used before. You can get the big ones out of so-called "fished out" waters. And you can do it with your present fishing methods and equipment - nothing new to buy - no special bait - no new fangled fishing gear. Whether you fish rivers, lakes, ponds or the ocean . . . whether you cast, spin, troll or do still fishing . . . the first time you fish the Lurene U-350 way, the thrill of a lifetime awaits you!

New Formula Discovered By German Scientist

This new and completely different method was developed by an outstanding German chemist, a graduate of the University of Wurtemberg, Germany. The climax of 2½ years of research and experimentation, it uses an entirely new principle: Atom Dispersion. It involves no special system of troiling, selning, casting, trapping, etc. Yet, time after time, you'll catch more fish. Professional fishermen who have tried it can hardly believe their eyes. If you give it a falr trial, you too will be surprised, for this is truly one of the greatest of ail fishing discoveries.

It's New . . . It's Different! Not an Oil-Not a Paste

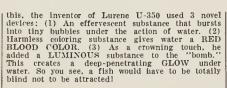
Most of the popular scented oils on the market appeal to fish through only one of their senses; smeli. But the odor usually vanishes so quickly that they aren't 100% effective. They may work fine if a fish comes up very close to your bait—otherwise you won't even get a nibble. Now Lurene U-350 is different from anything ever used before. It is different from oils and pastes that attract fish by smeli alone. It goes way beyond that. Lurene U-350 and only Lurene U-350 uses the new principle of Atom-Dispersion. Tests prove it has as much as 550% more attraction power than oils or greases.

How Atom Dispersion Helps You Attract Fish

Instead of using oils, pastes, creams or dressings, the Lureno U-350 formula consists of a powdered crystalline food essence. It's simple and easy to use. Place a small amount in the "bomb." On contact with water, the food essence Is dispersed evenly and over a wide area, in the form of tiny "snowfiakes." Naturally, fish can hardly help sensing it. He not only SMELLS the Lurene U-350, he also TASTES it and it tastes mighty good to fish! He is virtually compelied to come closer and the closer he comes, the more irresistible becomes your iure. The rest is up to you!

To Catch a Fish Appeal To His Senses

That's exactly what Lurene U-350 does! It appeals to a fish's senses of smell, taste, touch and sight! Oils and pastes just can't do ali this. They depend on smeil alone. That's why Lurene U-350 ls so much more successful. That's why you're bound to catch more fish with Lurene U-350, more than you're ever caught before with other scented lures. Fish notoriously have poor eyesight. To overcome



Fish Love to Nibble Savory "Snowflakes"

One of the most highly developed senses of marine life is the sense of touch. After many experiments, it was decided to use "snowflake" food. Lurene U-350 throws thousands of these tiny food particles into the water. Some are so small you couldn't see them without a microscope! Yet. a fish—whether large or small—senses them but is not scared away. In fact, if he's at all hungry he'il nibble on them. These "snowflakes" have been cunningly formulated to taste good as well as smell good to a fish. Naturally, when you've whetted his appetite, he wants more . . .

Hundreds of Tests Prove Lurene U-350 Power

The Lurene U-350 Power

The Lurene U-350 formula is a carefully guarded secret. It is made up of 7 ingredients combined by a special process. NO ONE ELSE HAS EVER USED THIS COMBINATION BEFORE. Literally hundreds of tests were made taking two and a half years. The final product was tested in controlled waters, in fish tanks and then in streams and takes. Recently it proved very successful on the open sea. Scientific controls were used for all tests. Samples were submitted to the Federal as well as all 48 State Fisheries Officials and Canada. Others were shipped to well-known sportsmen and fishing experts as well as independent testing taboratories. We subjected Lurene U-350 to every test we knew of before releasing it to the public. Reports of thrilling BIG catches have been pouring in from everywhere. After trying Lurene U-350 you too will realize why we can hardly fill the demand and are forced to limit orders to only 2 kits per person during the rest of this year.

So Easy To Use!

The Lurene U-350 comes in a complete ready-to-use kit. There's nothing else to buy. You receive easy, illustrated instructions, the iuminous atomizer "bomb" and a generous supply of food essence. Load the atomizer, drop it in the water and fish as usual. Lurene U-350 works equally well in lakes, streams, ocean. Practically everything that swinis is attracted to it, trout, bass, porgies, catfish, mackerel, to mention only a few.

Only professional fishermen can tell you that you can sweat it out for a whole day without catching a minnow yet even hundreds of fish may be within a few feet of where you sit. The professional fisherman knows from bitter experience that the waters are fabulously rich in good things to eat. Scientists have declared that there's enough sea food to feed the entire population of the earth. Therefore why should fish prefer your balt? Especially when there's so much good food around—in the same waters. And because professional fishermen know this, they use special scents to help them catch a full string of hig fish-time after time-at night as well as of big fish—time after time—at hight as wen as in daytime! Professional fishermen who tested Lurene U-350 now prefer it over oil scents used for over a century. They have found that this new product is much more powerful and draws in many proper fish.

Deep Penetrating Power Attracts Fish From Long Distances

Lurene U-350 reaches far deeper and farther out than fish bait oits. That's why tests have shown It to be at least 5½ times more powerful. As you know, oil and water do not mix and since oil is lighter than water it rises to the surface—where it does you little good. However, Lurene U-350 in snowflake form spreads out in all directions. The blood-like color and bubbles plus the luminous glow of the atomizer combine to give you greater PENETRATION, longer RANGE and far more ATTRACTION POWER. That's why it gives you better results than OIL or GREASE formulas. Certainly it costs more—but you'il agree—it's WORTH MORE than the old oily preparations.

Results Guaranteed or Lurene U-350 Doesn't Cost You 1c

Recentiy comparative experiments were made between Lurene U-350 and popular scented oils, some of which had been in use for over a century. The tests showed beyond any doubt the superior drawing power of Lurene U-350 over any other brand tested. That's why we make this daring offer: Try Lurene U-350 entirely at OUR risk and without obligation. It must heip you catch more fish—faster. You must be thrilled in every way. It must prove to be far BETTER than any other scent lure you've ever tried—or it doesn't cost you 1 cent! We want you to see for yourself how Lurene U-350 goes to work for you in a few minutes—how it releases its deep penetrating "cali" into the water—how it harnesses the mysterious instincts of the sea world—how It helps attract fish to your hook! We want to prove that Lurene U-350 really WORKS—that it positively helps to draw 'em in, be it instinct or magnetism, or what have you. So we say TRY it and let the RESULTS decide! See for yourself whether Lurene U-350 doesn't help you fill your creel. See for yourself if you don't get the big babies even in "Fished-out" waters. Use it to pull in your favorites . . . trout, pickerei, catfish, blues, weaks, pike, perch, snappers, bass, porgies. Send no money now—unless you wish. Deposit \$1.98 plus postage with your postman when he delivers your kit. Or mail cheque or cash for \$1.98 now and save all postage. In either case you're TRYING it—if you're not satisfied and thrilled in every way, simply return the EMPTY box and get your \$1.98 back by return mail. Not yet available in stores. To avoid disappointment, order by mail now. Rush coupon today!



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magnet. It appeals to the 4 most compelling sea-life
instincts: Touch, Smell, Taste, Sight. When charged
with the newly discovered Lurene U-350 Hi-Penetration
formula, it helps you catch more fish—far more than
with any popular bait oil. This article explains this
new method and shows you how you may change your
fishing luck.

AMERICA'S FAMOUS SPORTS EDITOR PRAISES NEW LURENE U-350 FORMULA

For years millions of readers have been following Walter S. Miller's fearless sports column, "Rod—Gun and Lens." Mr. Miller writes for over 15 metropolitan newspapers. He tests new products thoroughly—bait, lures, tackle, etc., then warns readers against shoddy, ineffective articles, but also gives praise where praise is due. This is what this great sports authority had to say about LURENE U-350:

"Recently a product called 'Lurene U-350,' a prepared bait oil, came into my possession with instructions to test it and pass on my opinion to you. Accordingly here are the results on several such

"Using an artificial lure of the spoon type in salt water the number of casts per fish was 27. With 'Lurene U-350' the number of casts per fish was 9. Accordingly this product is active enough to recommend to salt water fishermen since tests prove it will triple your catches regardless of type of fish.

"Again using an artificial lure of the spinner type in fresh water the number of casts per fish was 50. Using 'Lurene U-350' the number of casts per fish was reduced to the phenomenal low of 10 casts per fish. The results prove beyond a doubt that in fresh water 'Lurene U-350' quintupled the catch. I heartly endorse this product."

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Fishermen Know THORESEN LTD., Dept. 283-G-58 45 St. James St. West, Montreal, P.Q. RUSH . . . complete kits Lurene U-350 Fishing Discovery (LIMIT 2) at \$1.98 each on 7-day Free Trial-Money Back Guarantee. I must be thrilled and satisfied with the results-otherwise I

will return the EMPTY package for my \$1.98 back at once.

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